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VA DEQ - NRO

Jim Hoy, P.E.

County Engineer

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Email: jhoy@culpepercounty.gov

Certified Mail

December 14, 2009

Ms. Joan C. Crowther
VPDES Permit Writer
Virginia Department of Environmental Quality
Northern Virginia Regional Office
13901 Crown Court
Woodbridge, Virginia 22193

**Re: VA0090212 Culpeper County Mountain Run WWTP
Application for VPDES Permit Renewal
Response to December 2, 2009, Comments**

Dear Ms. Crowther:

Thank you for your December 2, 2009, comments. In response, please find attached an edited original and two (2) copies of an application for renewal for the above referenced permit.

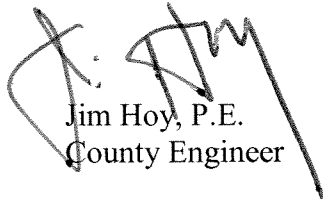
We would like to address each of your comments as provided below:

1. **VPDES Permit Application Addendum, Item no. 5:** The County requests that the 8 tier design flows (0.3 MGD, 0.6 MGD, 1.0 MGD, 1.25 MGD, 1.5 MGD, 1.7 MGD, 2.0 MGD and 2.5 MGD) authorized be maintained in the permit reissuance.
2. **EPA Form 1, Item X:** As noted, we have removed reference to other site environmental permits.
3. **EPA Form 2A, Part A.3:** As noted, we have removed reference to other site environmental permits.

4. **EPA Form 2A, Part A8.d.:** Under emergency circumstances, there may be a need for the Mountain Run WWTP to transfer untreated sewage via vactor/tanker truck to other County WWTP facilities. Since the Mountain Run WWTP is not built, this situation is not occurring presently. At this time, there is some County wastewater that is being treated at the Greens Corner WWTP and the Town of Culpeper WWTP.
5. **EPA Form 2A, Part A.9.b.:** We have verified the facility's discharge latitude and longitude. This future discharge through outlet 001 will be directly into Mountain Run. The attached topographic map depicts the same.
6. **EPA Form 2A, Part A.10.a:** This future discharge through outlet 001 will be directly into Mountain Run, as shown on the attached topographic map.
7. **EPA Form 2A, Part B.2:** To the best of our knowledge, we have provided the required information (b.2 (a. – f.) for the attached topographic map and WWTP facility plan (vicinity and plan view). As discussed, we are not aware of the presence of drinking water wells or springs within $\frac{1}{4}$ of a mile of the proposed WWTP.
8. **EPA Form 2A, Part B.3:** We have prepared and attached a process flow diagram with a brief narrative for the WWTP.
9. **EPA Form 2A, Part B.5:** At this time, the County does not have a proposed construction schedule for the Mountain Run WWTP.
10. **VPDES Sewage Sludge Permit Application Addendum:** We have prepared and attached this addendum (parts A and B).

If you have any questions or need additional, please contact me at (540) 727-3409.

Sincerely,



Jim Hoy, P.E.
County Engineer

Attachment

c: Master File

Mountain Run Wastewater Treatment Plant, VA0090212
VPDES Permit Application Addendum

1. Entity to whom the permit is to be issued: County of Culpeper

Who will be legally responsible for the wastewater treatment facilities and compliance with the permit? This may or may not be the facility or property owner.

2. Is this facility located within city or town boundaries? Yes ☐ No ☒

3. Provide the tax map parcel number for the land where the discharge is located. 42 41E

4. For the facility to be covered by this permit, how many acres will be disturbed during the next five years due to new construction activities? To be determined

5. What is the design average effluent flow of this facility? 2.5 MGD

For industrial facilities, provide the max. 30-day average production level, include units:

In addition to the design flow or production level, should the permit be written with limits for any other discharge flow tiers or production levels? Yes ☒ No ☐

If "Yes", please identify the other flow tiers (in MGD) or production levels:

0.3 MGD, 0.6 MGD, 1.0 MGD, 1.25 MGD, 1.5 MGD, 1.7 MGD, 2.0 MGD and 2.5 MGD

Please consider the following questions for both the flow tiers and the production levels (if applicable): Do you plan to expand operations during the next five years? Is your facility's design flow considerably greater than your current flow?

N/A for both questions

6. Nature of operations generating wastewater:

Sanitary effluent from domestic and commercial sources within Culpeper County

75 % of flow from domestic connections/sources

Number of private residences to be served by the treatment works: _____

25 % of flow from non-domestic connections/sources

7. Mode of discharge: ☒ Continuous ☐ Intermittent ☐ Seasonal

Describe frequency and duration of intermittent or seasonal discharges:

8. Identify the characteristics of the receiving stream at the point just above the facility's discharge point:

☐ Permanent stream, never dry

☒ Intermittent stream, usually flowing, sometimes dry

☐ Ephemeral stream, wet-weather flow, often dry

☒ Effluent-dependent stream, usually or always dry without effluent flow

☐ Lake or pond at or below the discharge point

Other: _____

9. Approval Date(s):

O & M Manual N/A

Sludge/Solids Management Plan N/A

Have there been any changes in your operations or procedures since the above approval dates? Yes ☐ No ☒ N/A

| FORM 1 GENERAL | | U.S. ENVIRONMENTAL PROTECTION AGENCY GENERAL INFORMATION Consolidated Permits Program (Read the "General Instructions" before starting.) | | I. EPA I.D. NUMBER | |
|---|--|---|----|---|--|
| LABEL ITEMS | | VA0090212 | | GENERAL INSTRUCTIONS If a preprinted label has been provided, affix it in the designated space. Review the information carefully; if any of it is incorrect, cross through it and enter the correct data in the appropriate fill-in area below. Also, if any of the preprinted data is absent (the area to the left of the label space lists the information that should appear), please provide it in the proper fill-in area(s) below. If the label is complete and correct, you need not complete items I, III, V, and VI (except VI-B which must be completed regardless). Complete all items if no label has been provided. Refer to the instructions for detailed item descriptions and for the legal authorizations under which this data is collected. | |
| I. EPA I.D. NUMBER | | VA0090212 | | | |
| III. FACILITY NAME | | Mountain Run Wastewater Treatment Plant | | | |
| V. FACILITY MAILING ADDRESS | | 118 West Davis Street, Suite 101 | | | |
| VI. FACILITY LOCATION | | Culpeper, VA 22701 | | | |
| | | Culpeper County, Virginia | | | |
| II. POLLUTANT CHARACTERISTICS | | | | | |
| INSTRUCTIONS: Complete A through J to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to any questions, you must submit this form and the supplemental form listed in the parenthesis following the question. Mark "X" in the box in the third column if the supplemental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your activity is excluded from permit requirements; see Section C of the instructions. See also, Section D of the instructions for definitions of bold-faced terms. | | | | | |
| SPECIFIC QUESTIONS | | Mark "X" | | Mark "X" | |
| | | YES | NO | FORM ATTACHED | |
| A. Is this facility a publicly owned treatment works which results in a discharge to waters of the U.S.? (FORM 2A) | | X | | | |
| | | 16 | 17 | 18 | |
| C. Is this a facility which currently results in discharges to waters of the U.S. other than those described in A or B above? (FORM 2C) | | | X | | |
| | | 22 | 23 | 24 | |
| E. Does or will this facility treat, store, or dispose of hazardous wastes? (FORM 3) | | | X | | |
| | | 28 | 29 | 30 | |
| G. Do you or will you inject at this facility any produced water or other fluids which are brought to the surface in connection with conventional oil or natural gas production, inject fluids used for enhanced recovery of oil or natural gas, or inject fluids for storage of liquid hydrocarbons? (FORM 4) | | | X | | |
| | | 34 | 35 | 36 | |
| I. Is this facility a proposed stationary source which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5) | | | X | | |
| | | 40 | 41 | 42 | |
| B. Does or will this facility (either existing or proposed) include a concentrated animal feeding operation or aquatic animal production facility which results in a discharge to waters of the U.S.? (FORM 2B) | | | X | | |
| | | 19 | 20 | 21 | |
| D. Is this a proposed facility (other than those described in A or B above) which will result in a discharge to waters of the U.S.? (FORM 2D) | | | X | | |
| | | 25 | 26 | 27 | |
| F. Do you or will you inject at this facility industrial or municipal effluent below the lowermost stratum containing, within one quarter mile of the well bore, underground sources of drinking water? (FORM 4) | | | X | | |
| | | 31 | 32 | 33 | |
| H. Do you or will you inject at this facility fluids for special processes such as mining of sulfur by the Frasch process, solution mining of minerals, in situ combustion of fossil fuel, or recovery of geothermal energy? (FORM 4) | | | X | | |
| | | 37 | 38 | 39 | |
| J. Is this facility a proposed stationary source which is NOT one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5) | | | X | | |
| | | 43 | 44 | 45 | |
| III. NAME OF FACILITY | | | | | |
| C. SKIP MOUNTAIN RUN WASTEWATER TREATMENT PLANT | | | | | |
| 15 16 - 29 30 69 | | | | | |
| IV. FACILITY CONTACT | | | | | |
| A. NAME & TITLE (last, first, & title) | | | | | |
| B. PHONE (area code & no.) | | | | | |
| C. PAUL HOWARD, DIRECTOR OF ENVIRONMENTAL SERVICES | | | | | |
| (540) 727-3409 | | | | | |
| 15 16 45 46 48 49 51 52 55 | | | | | |
| V. FACILITY MAILING ADDRESS | | | | | |
| A. STREET OR P.O. BOX | | | | | |
| C. 118 WEST DAVIS STREET, SUITE 101 | | | | | |
| 15 16 45 | | | | | |
| B. CITY OR TOWN | | | | | |
| C. STATE | | | | | |
| D. ZIP CODE | | | | | |
| C. CULPEPER | | | | | |
| VA | | | | | |
| 22701 | | | | | |
| 15 16 40 41 42 47 51 | | | | | |
| VI. FACILITY LOCATION | | | | | |
| A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER | | | | | |
| C. NEAR RTE. 652 (STEVENSURG ROAD) | | | | | |
| 15 16 45 | | | | | |
| B. COUNTY NAME | | | | | |
| CULPEPER | | | | | |
| 46 70 | | | | | |
| C. CITY OR TOWN | | | | | |
| D. STATE | | | | | |
| E. ZIP CODE | | | | | |
| F. COUNTY CODE (if known) | | | | | |
| C. 6 | | | | | |
| VA | | | | | |
| 22701 | | | | | |
| 15 16 40 41 42 47 51 52 54 | | | | | |

CONTINUED FROM THE FRONT

| VII. SIC CODES (4-digit, in order of priority) | | | | | | | | | | | | | | | |
|---|----|--------------------|-----|----|--|---|----|----|----|--|-------------|---|-----------------|---|----|
| A. FIRST | | | | | | | | | | B. SECOND | | | | | |
| C | 7 | 4 | 9 | 5 | 2 | (specify) Sewerage Systems: establishments primarily engaged in the collection and disposal of wastes conducted through a sewer system, including such treatment processes. | | | | | C | 7 | (specify) | | |
| 15 | 16 | 17 | 18 | 19 | | 15 | 16 | 17 | 18 | 19 | | | | | |
| C. THIRD | | | | | | | | | | D. FOURTH | | | | | |
| C | 7 | (specify) | | | | | | | | C | 7 | (specify) | | | |
| 15 | 16 | 17 | 18 | 19 | | 15 | 16 | 17 | 18 | 19 | | | | | |
| VIII. OPERATOR INFORMATION | | | | | | | | | | | | | | | |
| A. NAME | | | | | | | | | | | | | | | |
| C | 8 | COUNTY OF CULPEPER | | | | | | | | | | | | B. Is the name listed in item VIII-A also the owner? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO | |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | |
| C. STATUS OF OPERATOR (Enter the appropriate letter into the answer box: if "Other," specify.) | | | | | | | | | | | | | | | |
| F = FEDERAL | | | | | M = PUBLIC (other than federal or state) | | | | | O = OTHER (specify) | | | | | |
| S = STATE | | | | | M | | | | | (specify) CULPEPER COUNTY, VIRGINIA | | | | | |
| P = PRIVATE | | | | | 56 | | | | | | | | | | |
| D. PHONE (area code & no.) | | | | | | | | | | | | | | | |
| | | | | | A | | | | | (540) 727-3409 | | | | | |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | |
| E. STREET OR P.O. BOX | | | | | | | | | | | | | | | |
| 118 WEST DAVIS STREET | | | | | | | | | | | | | | | |
| 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | |
| F. CITY OR TOWN | | | | | | | | | | | | | | | |
| C | B | CULPEPER | | | | | | | | | | | | G. STATE | |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | |
| | | | | | | | | | | VA | H. ZIP CODE | | IX. INDIAN LAND | | |
| | | | | | | | | | | 40 | 41 | 42 | 43 | 44 | 45 |
| | | | | | | | | | | 22 | 70 | Is the facility located on Indian lands? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO | | | |
| 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | |
| X. EXISTING ENVIRONMENTAL PERMITS | | | | | | | | | | | | | | | |
| A. NPDES (Discharges to Surface Water) | | | | | | | | | | D. PSD (Air Emissions from Proposed Sources) | | | | | |
| C | 9 | N | N/A | | | | | | | C | 9 | P | | | |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | |
| B. UIC (Underground Injection of Fluids) | | | | | | | | | | E. OTHER (specify) | | | | | |
| C | 9 | U | | | | | | | | C | 9 | N/A | | | |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | |
| C. RCRA (Hazardous Wastes) | | | | | | | | | | E. OTHER (specify) | | | | | |
| C | 9 | R | | | | | | | | C | 9 | N/A | | | |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | |
| XI. MAP | | | | | | | | | | | | | | | |
| <p>Attach to this application a topographic map of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers, and other surface water bodies in the map area. See instructions for precise requirements.</p> | | | | | | | | | | | | | | | |
| XII. NATURE OF BUSINESS (provide a brief description) | | | | | | | | | | | | | | | |
| The County of Culpeper is a municipality that provides water and sewerage services to the public. | | | | | | | | | | | | | | | |
| XIII. CERTIFICATION (see instructions) | | | | | | | | | | | | | | | |
| <p>I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.</p> | | | | | | | | | | | | | | | |
| A. NAME & OFFICIAL TITLE (type or print) | | | | | | | | | | B. SIGNATURE | | | | | |
| Paul Howard, Jr. | | | | | | | | | |  | | | | | |
| Director of Environmental Services | | | | | | | | | | C. DATE SIGNED | | | | | |
| | | | | | | | | | | 12/13/09 | | | | | |
| COMMENTS FOR OFFICIAL USE ONLY | | | | | | | | | | | | | | | |
| C | | | | | | | | | | | | | | | |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | |

FACILITY NAME AND PERMIT NUMBER:

Mountain Run Wastewater Treatment Plant, VA0090212

Form Approved 1/14/99
OMB Number 2040-0086**BASIC APPLICATION INFORMATION****PART A. BASIC APPLICATION INFORMATION FOR ALL APPLICANTS:****All treatment works must complete questions A.1 through A.8 of this Basic Application Information packet.****A.1. Facility Information.**

Facility name MOUNTAIN RUN WASTEWATER TREATMENT PLANT

Mailing Address 118 West Davis Street, Suite 101, Culpeper, VA 22701

Contact person Paul Howard, Jr.

Title Director of Environmental Services

Telephone number (540) 727-3409

Facility Address Near Rte. 652 (Stevensburg Road)

(not P.O. Box) _____

A.2. Applicant Information. If the applicant is different from the above, provide the following:

Applicant name Culpeper County

Mailing Address 118 West Davis Street, Suite 101, Culpeper, VA 22701

Contact person Same as noted above

Title _____

Telephone number _____

Is the applicant the owner or operator (or both) of the treatment works?☒ owner ☒ operator

Indicate whether correspondence regarding this permit should be directed to the facility or the applicant.

☐ facility ☒ applicant**A.3. Existing Environmental Permits.** Provide the permit number of any existing environmental permits that have been issued to the treatment works (include state-issued permits).

| | | | |
|-------|------------|-------|------------|
| NPDES | <u>N/A</u> | PSD | <u>N/A</u> |
| UIC | <u>N/A</u> | Other | <u>N/A</u> |
| RCRA | <u>N/A</u> | Other | <u>N/A</u> |

A.4. Collection System Information. Provide information on municipalities and areas served by the facility. Provide the name and population of each entity and, if known, provide information on the type of collection system (combined vs. separate) and its ownership (municipal, private, etc.).

| Name | Population Served | Type of Collection System | Ownership |
|-------------------------|-------------------|---------------------------|------------------|
| <u>CCWSA</u> | <u>10,000</u> | <u>Separate</u> | <u>Municipal</u> |
| _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ |
| Total population served | | <u>10,000</u> | |

FACILITY NAME AND PERMIT NUMBER:

Mountain Run Wastewater Treatment Plant, VA0090212

Form Approved 1/14/99
OMB Number 2040-0086

If yes, describe the mean(s) by which the wastewater from the treatment works is discharged or transported to the other treatment works (e.g., tank truck, pipe).

For future use only, wastewater via tanker truck to/from other County or Town WW treatment facilities (emergency basis)

If transport is by a party other than the applicant, provide:

Transporter name: To be determined

Mailing Address: _____

Contact person: _____

Title: _____

Telephone number: _____

For each treatment works that receives this discharge, provide the following:

Name: To be determined

Mailing Address: _____

Contact person: _____

Title: _____

Telephone number: _____

If known, provide the NPDES permit number of the treatment works that receives this discharge. _____

Provide the average daily flow rate from the treatment works into the receiving facility. _____

mgd

- e. Does the treatment works discharge or dispose of its wastewater in a manner not included in A.8.a through A.8.d above (e.g., underground percolation, well injection)?

☐ Yes☒ No

If yes, provide the following for each disposal method:

Description of method (including location and size of site(s) if applicable):

Annual daily volume disposed of by this method: _____

Is disposal through this method

☐

continuous or

☐

intermittent?

FACILITY NAME AND PERMIT NUMBER:

Mountain Run Wastewater Treatment Plant, VA0090212

Form Approved 1/14/99
OMB Number 2040-0086

A.11. Description of Treatment.

- a. What levels of treatment are provided? Check all that apply.

☒ Primary ☒ Secondary
☒ Advanced ☐ Other. Describe: _____

- b. Indicate the following removal rates (as applicable):

Design BOD₅ removal or Design CBOD₅ removal 95 %
 Design SS removal 95 %
 Design P removal 95 %
 Design N removal 90 %
 Other _____ %

- c. What type of disinfection is used for the effluent from this outfall? If disinfection varies by season, please describe.

Ultraviolet (UV) Light Disinfection

If disinfection is by chlorination, is dechlorination used for this outfall?

☐ Yes ☒ No

- d. Does the treatment plant have post aeration?

☒ Yes ☐ No

A.12. Effluent Testing Information. All Applicants that discharge to waters of the US must provide effluent testing data for the following parameters. Provide the indicated effluent testing required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. At a minimum, effluent testing data must be based on at least three samples and must be no more than four and one-half years apart.

Outfall number: 001

| PARAMETER | MAXIMUM DAILY VALUE | | AVERAGE DAILY VALUE | | |
|----------------------|---------------------|-------|---------------------|-------|-------------------|
| | Value | Units | Value | Units | Number of Samples |
| pH (Minimum) | N/A | s.u. | | | |
| pH (Maximum) | N/A | s.u. | | | |
| Flow Rate | N/A | | | | |
| Temperature (Winter) | N/A | | | | |
| Temperature (Summer) | N/A | | | | |

* For pH please report a minimum and a maximum daily value

| POLLUTANT | MAXIMUM DAILY DISCHARGE | | AVERAGE DAILY DISCHARGE | | | ANALYTICAL METHOD | ML / MDL |
|-----------|-------------------------|-------|-------------------------|-------|-------------------|-------------------|----------|
| | Conc. | Units | Conc. | Units | Number of Samples | | |

CONVENTIONAL AND NONCONVENTIONAL COMPOUNDS.

| | | | | | | | |
|--|--------|-----|--|--|--|--|--|
| BIOCHEMICAL OXYGEN DEMAND (Report one) | BOD-5 | N/A | | | | | |
| | CBOD-5 | N/A | | | | | |
| FECAL COLIFORM | N/A | | | | | | |
| TOTAL SUSPENDED SOLIDS (TSS) | N/A | | | | | | |

END OF PART A.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

FACILITY NAME AND PERMIT NUMBER:

Mountain Run Wastewater Treatment Plant, VA0090212

Form Approved 1/14/99
OMB Number 2040-0086

- c If the answer to B.5.b is "Yes," briefly describe, including new maximum daily inflow rate (if applicable).

- d. Provide dates imposed by any compliance schedule or any actual dates of completion for the implementation steps listed below, as applicable. For improvements planned independently of local, State, or Federal agencies, indicate planned or actual completion dates, as applicable. Indicate dates as accurately as possible.

| Implementation Stage | Schedule | Actual Completion |
|----------------------------|----------------|-------------------|
| | MM / DD / YYYY | MM / DD / YYYY |
| – Begin construction | ___/___/___ | ___/___/___ |
| – End construction | ___/___/___ | ___/___/___ |
| – Begin discharge | ___/___/___ | ___/___/___ |
| – Attain operational level | ___/___/___ | ___/___/___ |

- e. Have appropriate permits/clearances concerning other Federal/State requirements been obtained? ☐ Yes ☐ No

Describe briefly: _____

B.6. EFFLUENT TESTING DATA (GREATER THAN 0.1 MGD ONLY).

Applicants that discharge to waters of the US must provide effluent testing data for the following parameters. Provide the indicated effluent testing required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. At a minimum, effluent testing data must be based on at least three pollutant scans and must be no more than four and one-half years old.

Outfall Number: 001

| POLLUTANT | MAXIMUM DAILY DISCHARGE | | AVERAGE DAILY DISCHARGE | | | ANALYTICAL METHOD | ML / MDL |
|---|-------------------------|-------|-------------------------|-------|-------------------|-------------------|----------|
| | Conc. | Units | Conc. | Units | Number of Samples | | |
| CONVENTIONAL AND NONCONVENTIONAL COMPOUNDS. | | | | | | | |
| AMMONIA (as N) | N/A | | | | | | |
| CHLORINE (TOTAL RESIDUAL, TRC) | N/A | | | | | | |
| DISSOLVED OXYGEN | N/A | | | | | | |
| TOTAL KJELDAHL NITROGEN (TKN) | N/A | | | | | | |
| NITRATE PLUS NITRITE NITROGEN | N/A | | | | | | |
| OIL and GREASE | N/A | | | | | | |
| PHOSPHORUS (Total) | N/A | | | | | | |
| TOTAL DISSOLVED SOLIDS (TDS) | N/A | | | | | | |
| OTHER | | | | | | | |

END OF PART B.

REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

FACILITY NAME AND PERMIT NUMBER:

Mountain Run Wastewater Treatment Plant, VA0090212

Form Approved 1/14/99
OMB Number 2040-0086

SUPPLEMENTAL APPLICATION INFORMATION

PART D. EXPANDED EFFLUENT TESTING DATA

Refer to the directions on the cover page to determine whether this section applies to the treatment works.

Effluent Testing: 1.0 mgd and Pretreatment Treatment Works. If the treatment works has a design flow greater than or equal to 1.0 mgd or it has (or is required to have) a pretreatment program, or is otherwise required by the permitting authority to provide the data, then provide effluent testing data for the following pollutants. Provide the indicated effluent testing information and any other information required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analyses conducted using 40 CFR Part 136 methods. In addition, these data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. Indicate in the blank rows provided below any data you may have on pollutants not specifically listed in this form. At a minimum, effluent testing data must be based on at least three pollutant scans and must be no more than four and one-half years old.

Outfall number: 001 (Complete once for each outfall discharging effluent to waters of the United States.)

| POLLUTANT | MAXIMUM DAILY DISCHARGE | | | | AVERAGE DAILY DISCHARGE | | | | | ANALYTICAL METHOD | ML/ MDL |
|---|-------------------------|-------|------|-------|-------------------------|-------|------|-------|-------------------|-------------------|---------|
| | Conc. | Units | Mass | Units | Conc. | Units | Mass | Units | Number of Samples | | |
| METALS (TOTAL RECOVERABLE), CYANIDE, PHENOLS, AND HARDNESS. | | | | | | | | | | | |
| ANTIMONY | N/A | | | | | | | | | | |
| ARSENIC | N/A | | | | | | | | | | |
| BERYLLIUM | N/A | | | | | | | | | | |
| CADMIUM | N/A | | | | | | | | | | |
| CHROMIUM | N/A | | | | | | | | | | |
| COPPER | N/A | | | | | | | | | | |
| LEAD | N/A | | | | | | | | | | |
| MERCURY | N/A | | | | | | | | | | |
| NICKEL | N/A | | | | | | | | | | |
| SELENIUM | N/A | | | | | | | | | | |
| SILVER | N/A | | | | | | | | | | |
| THALLIUM | N/A | | | | | | | | | | |
| ZINC | N/A | | | | | | | | | | |
| CYANIDE | N/A | | | | | | | | | | |
| TOTAL PHENOLIC COMPOUNDS | N/A | | | | | | | | | | |
| HARDNESS (AS CaCO ₃) | N/A | | | | | | | | | | |
| Use this space (or a separate sheet) to provide information on other metals requested by the permit writer. | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

FACILITY NAME AND PERMIT NUMBER:

Mountain Run Wastewater Treatment Plant, VA0090212

 Form Approved 1/14/99
 OMB Number 2040-0086

 Outfall number: 001 (Complete once for each outfall discharging effluent to waters of the United States.)

| POLLUTANT | MAXIMUM DAILY DISCHARGE | | | | AVERAGE DAILY DISCHARGE | | | | | ANALYTICAL METHOD | ML/ MDL |
|-----------------------|-------------------------|-------|------|-------|-------------------------|-------|------|-------|-------------------|-------------------|---------|
| | Conc. | Units | Mass | Units | Conc. | Units | Mass | Units | Number of Samples | | |
| 1,1,1-TRICHLOROETHANE | N/A | | | | | | | | | | |
| 1,1,2-TRICHLOROETHANE | N/A | | | | | | | | | | |
| TRICHLOROETHYLENE | N/A | | | | | | | | | | |
| VINYL CHLORIDE | N/A | | | | | | | | | | |

Use this space (or a separate sheet) to provide information on other volatile organic compounds requested by the permit writer.

| | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|--|
| | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|--|

ACID-EXTRACTABLE COMPOUNDS

| | | | | | | | | | | | |
|-----------------------|-----|--|--|--|--|--|--|--|--|--|--|
| P-CHLORO-M-CRESOL | N/A | | | | | | | | | | |
| 2-CHLOROPHENOL | N/A | | | | | | | | | | |
| 2,4-DICHLOROPHENOL | N/A | | | | | | | | | | |
| 2,4-DIMETHYLPHENOL | N/A | | | | | | | | | | |
| 4,6-DINITRO-O-CRESOL | N/A | | | | | | | | | | |
| 2,4-DINITROPHENOL | N/A | | | | | | | | | | |
| 2-NITROPHENOL | N/A | | | | | | | | | | |
| 4-NITROPHENOL | N/A | | | | | | | | | | |
| PENTACHLOROPHENOL | N/A | | | | | | | | | | |
| PHENOL | N/A | | | | | | | | | | |
| 2,4,6-TRICHLOROPHENOL | N/A | | | | | | | | | | |

Use this space (or a separate sheet) to provide information on other acid-extractable compounds requested by the permit writer.

| | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|--|
| | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|--|

BASE-NEUTRAL COMPOUNDS.

| | | | | | | | | | | | |
|--------------------|-----|--|--|--|--|--|--|--|--|--|--|
| ACENAPHTHENE | N/A | | | | | | | | | | |
| ACENAPHTHYLENE | N/A | | | | | | | | | | |
| ANTHRACENE | N/A | | | | | | | | | | |
| BENZIDINE | N/A | | | | | | | | | | |
| BENZO(A)ANTHRACENE | N/A | | | | | | | | | | |
| BENZO(A)PYRENE | N/A | | | | | | | | | | |

FACILITY NAME AND PERMIT NUMBER:

Mountain Run Wastewater Treatment Plant, VA0090212

Form Approved 1/14/99
OMB Number 2040-0086

Outfall number: _____ (Complete once for each outfall discharging effluent to waters of the United States.)

| POLLUTANT | MAXIMUM DAILY DISCHARGE | | | | AVERAGE DAILY DISCHARGE | | | | | ANALYTICAL METHOD | ML/ MDL |
|----------------------------|-------------------------|-------|------|-------|-------------------------|-------|------|-------|-------------------|-------------------|---------|
| | Conc. | Units | Mass | Units | Conc. | Units | Mass | Units | Number of Samples | | |
| FLUORANTHENE | N/A | | | | | | | | | | |
| FLUORENE | N/A | | | | | | | | | | |
| HEXACHLOROBENZENE | N/A | | | | | | | | | | |
| HEXACHLOROBUTADIENE | N/A | | | | | | | | | | |
| HEXACHLOROCYCLO-PENTADIENE | N/A | | | | | | | | | | |
| HEXACHLOROETHANE | N/A | | | | | | | | | | |
| INDENO(1,2,3-CD)PYRENE | N/A | | | | | | | | | | |
| ISOPHORONE | N/A | | | | | | | | | | |
| NAPHTHALENE | N/A | | | | | | | | | | |
| NITROBENZENE | N/A | | | | | | | | | | |
| N-NITROSODI-N-PROPYLAMINE | N/A | | | | | | | | | | |
| N-NITROSODI- METHYLAMINE | N/A | | | | | | | | | | |
| N-NITROSODI-PHENYLAMINE | N/A | | | | | | | | | | |
| PHENANTHRENE | N/A | | | | | | | | | | |
| PYRENE | N/A | | | | | | | | | | |
| 1,2,4-TRICHLOROBENZENE | N/A | | | | | | | | | | |

Use this space (or a separate sheet) to provide information on other base-neutral compounds requested by the permit writer.

Use this space (or a separate sheet) to provide information on other pollutants (e.g., pesticides) requested by the permit writer.

END OF PART D.**REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE**

VPDES SEWAGE SLUDGE PERMIT APPLICATION FORM

SCREENING INFORMATION

This application is divided into four sections. Section A pertains to all applicants. The applicability of Sections B, C and D depends on your facility's sewage sludge use or disposal practices. The information provided on this page will help you determine which sections to fill out.

1. All applicants must complete Section A (General Information).

2. Does this facility generate sewage sludge? ☒ Yes ☐ No

Does this facility derive a material from sewage sludge? ☐ Yes ☒ No

If you answered "Yes" to either, complete Section B (Generation Of Sewage Sludge or Preparation Of A Material Derived From Sewage Sludge).

3. Does this facility apply sewage sludge to the land? ☐ Yes ☒ No

Is sewage sludge from this facility applied to the land? ☐ Yes ☒ No

If you answer "No" to all above, skip Section C.

If you answered "Yes" to either, answer the following three questions:

a. Does the sewage sludge from this facility meet the ceiling concentrations, pollutant concentrations, Class A pathogen reduction requirements and one of the vector attraction reduction requirements 1-8, as identified in the instructions?
☐ Yes ☐ No

b. Is sewage sludge from this facility placed in a bag or other container for sale or give-away for application to the land?
☐ Yes ☐ No

c. Is sewage sludge from this facility sent to another facility for treatment or blending? ☐ Yes ☐ No

If you answered "No" to all three, complete Section C (Land Application Of Bulk Sewage Sludge).

If you answered "Yes" to a, b or c, skip Section C.

4. Do you own or operate a surface disposal site? ☐ Yes ☒ No

If "Yes", complete Section D (Surface Disposal).

SECTION A. GENERAL INFORMATION

All applicants must complete this section.

1. Facility Information.

- a. Facility name: Mountain Run Wastewater Treatment Plant
- b. Contact person: Jim Hoy
Title: County Engineer
Phone: (540) 727-3409
- c. Mailing address:
Street or P.O. Box: 118 W. Davis Street, Suite 101
City or Town: Culpeper State: VA Zip: 22701
- d. Facility location:
Street or Route #: Near Rte. 652, (Stevensburg Road)
County: Culpeper
City or Town: Culpeper State: VA Zip: 22701
- e. Is this facility a Class I sludge management facility? ☒ Yes ☐ No
- f. Facility design flow rate: 2.5 mgd
- g. Total population served: 10,000
- h. Indicate the type of facility:
☒ Publicly owned treatment works (POTW)
☐ Privately owned treatment works
☐ Federally owned treatment works
☐ Blending or treatment operation
☐ Surface disposal site
☐ Other (describe): _____

2. Applicant Information. If the applicant is different from the above, provide the following:

- a. Applicant name: _____
- b. Mailing address:
Street or P.O. Box: _____
City or Town: _____ State: _____ Zip: _____
- c. Contact person: _____
Title: _____
Phone: (_____) _____
- d. Is the applicant the owner or operator (or both) of this facility?
☐ owner ☐ operator
- e. Should correspondence regarding this permit be directed to the facility or the applicant?
☐ facility ☐ applicant

3. Permit Information.

- a. Facility's VPDES permit number (if applicable): VA0090212
- b. List on this form or an attachment, all other federal, state or local permits or construction approvals received or applied for that regulate this facility's sewage sludge management practices:
- | Permit Number: | Type of Permit: |
|----------------|-----------------|
| <u>N/A</u> | _____ |
| _____ | _____ |

4. **Indian Country.** Does any generation, treatment, storage, application to land or disposal of sewage sludge from this facility occur in Indian Country? _____ Yes ☒ No If "Yes", describe:

5. **Topographic Map.** Provide a topographic map or maps (or other appropriate maps if a topographic map is unavailable) that shows the following information. Maps should include the area one mile beyond all property boundaries of the facility:

- Location of all sewage sludge management facilities, including locations where sewage sludge is generated, stored, treated, or disposed. *(please see attached topographic map and facility plan provided in application package)*
- Location of all wells, springs, and other surface water bodies listed in public records or otherwise known to the applicant within 1/4 mile of the property boundaries. *(please see attached topographic map and facility plan provided in application package)*

6. **Line Drawing.** Provide a line drawing and/or a narrative description that identifies all sewage sludge processes that will be employed during the term of the permit including all processes used for collecting, dewatering, storing, or treating sewage sludge, the destination(s) of all liquids and solids leaving each unit, and all methods used for pathogen reduction and vector attraction reduction. *(please see attached WWTP process flow diagram provided in application package)*

7. **Contractor Information.** Are any operational or maintenance aspects of this facility related to sewage sludge generation, treatment, use or disposal the responsibility of a contractor? _____ Yes ☒ No

If "Yes", provide the following for each contractor (attach additional pages if necessary).

Name: _____

Mailing address: _____

Street or P.O. Box: _____

City or Town: _____ State: _____ Zip: _____

Phone: (_____) _____

Contractor's Federal, State or Local Permit Number(s) applicable to this facility's sewage sludge:

If the contractor is responsible for the use and/or disposal of the sewage sludge, provide a description of the service to be provided to the applicant and the respective obligations of the applicant and the contractor(s).

8. **Pollutant Concentrations.** Using the table below or a separate attachment, provide sewage sludge monitoring data for the pollutants which limits in sewage sludge have been established in 9 VAC 25-31-10 et seq. for this facility's expected use or disposal practices. All data must be based on three or more samples taken at least one month apart and must be no more than four and one-half years old.

| POLLUTANT | CONCENTRATION (mg/kg dry weight) | SAMPLE DATE | ANALYTICAL METHOD | DETECTION LEVEL FOR ANALYSIS |
|------------|-------------------------------------|----------------|----------------------|---------------------------------|
| Arsenic | N/A | | | |
| Cadmium | N/A | | | |
| Chromium | N/A | | | |
| Copper | N/A | | | |
| Lead | N/A | | | |
| Mercury | N/A | | | |
| Molybdenum | N/A | | | |
| Nickel | N/A | | | |
| Selenium | N/A | | | |
| Zinc | N/A | | | |

9. **Certification.** Read and submit the following certification statement with this application. Refer to the instructions to determine who is an officer for purposes of this certification. Indicate which parts of the application you have completed and are submitting:

X Section A (General Information)

X Section B (Generation of Sewage Sludge or Preparation of a Material Derived from Sewage Sludge)

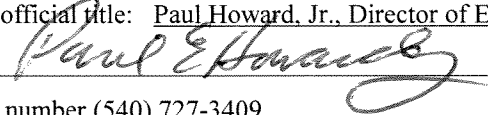
 Section C (Land Application of Bulk Sewage Sludge)

 Section D (Surface Disposal)

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Name and official title: Paul Howard, Jr., Director of Environmental Services

Signature



Date Signed

12/13/09

Telephone number (540) 727-3409

Upon request of the department, you must submit any other information necessary to assess sewage sludge use or disposal practices at your facility or identify appropriate permitting requirements.

**SECTION B. GENERATION OF SEWAGE SLUDGE OR PREPARATION
OF A MATERIAL DERIVED FROM SEWAGE SLUDGE**

Complete this section if your facility generates sewage sludge or derives a material from sewage sludge

1. Amount Generated On Site.

Total dry metric tons per 365-day period generated at your facility: 4400 dry metric tons

2. Amount Received from Off Site. If your facility receives sewage sludge from another facility for treatment, use or disposal, provide the following information for each facility from which sewage sludge is received. If you receive sewage sludge from more than one facility, attach additional pages as necessary.

- a. Facility name: N/A
- b. Contact Person: _____
Title: _____
Phone: (_____) _____
- c. Mailing address:
Street or P.O. Box: _____
City or Town: _____ State: _____ Zip: _____
- d. Facility location: _____
(not P.O. Box) _____
- e. Total dry metric tons per 365-day period received from this facility: _____ dry metric tons
- f. Describe, on this form or on another sheet of paper, any treatment processes known to occur at the off-site facility, including blending activities and treatment to reduce pathogens or vector attraction characteristics:

3. Treatment Provided at Your Facility.

- a. Which class of pathogen reduction is achieved for the sewage sludge at your facility?
____ Class A ____ Class B ☒ Neither or unknown
- b. Describe, on this form or another sheet of paper, any treatment processes used at your facility to reduce pathogens in sewage sludge: N/A, sewage sludge will be transferred from the facility to a licensed sanitary waste landfill.
- c. Which vector attraction reduction option is met for the sewage sludge at your facility?
____ Option 1 (Minimum 38 percent reduction in volatile solids)
____ Option 2 (Anaerobic process, with bench-scale demonstration)
____ Option 3 (Aerobic process, with bench-scale demonstration)
____ Option 4 (Specific oxygen uptake rate for aerobically digested sludge)
____ Option 5 (Aerobic processes plus raised temperature)
____ Option 6 (Raise pH to 12 and retain at 11.5)
____ Option 7 (75 percent solids with no unstabilized solids)
____ Option 8 (90 percent solids with unstabilized solids)
☒ None or unknown
- d. Describe, on this form or another sheet of paper, any treatment processes used at your facility to reduce vector attraction properties of sewage sludge: N/A, sewage sludge from the facility will be stored and gravity thickened in an enclosed storage tank.
- e. Describe, on this form or another sheet of paper, any other sewage sludge treatment activities, including blending, not identified in a - d above: N/A

4. Preparation of Sewage Sludge Meeting Ceiling and Pollutant Concentrations, Class A Pathogen Requirements and One of Vector Attraction Reduction Options 1-8 (EQ Sludge).

(If sewage sludge from your facility does not meet all of these criteria, skip Question 4.)

- a. Total dry metric tons per 365-day period of sewage sludge subject to this section that is applied to the land:

N/A dry metric tons

- b. Is sewage sludge subject to this section placed in bags or other containers for sale or give-away?

 Yes No

5. Sale or Give-Away in a Bag or Other Container for Application to the Land.

(Complete this question if you place sewage sludge in a bag or other container for sale or give-away prior to land application. Skip this question if sewage sludge is covered in Question 4.)

- a. Total dry metric tons per 365-day period of sewage sludge placed in a bag or other container at your facility for sale or give-away for application to the land: N/A dry metric tons

- b. Attach, with this application, a copy of all labels or notices that accompany the sewage sludge being sold or given away in a bag or other container for application to the land.

6. Shipment Off Site for Treatment or Blending.

(Complete this question if sewage sludge from your facility is sent to another facility that provides treatment or blending. This question does not apply to sewage sludge sent directly to a land application or surface disposal site. Skip this question if the sewage sludge is covered in Questions 4 or 5. If you send sewage sludge to more than one facility, attach additional sheets as necessary.)

- a. Receiving facility name: N/A

- b. Facility contact: _____

Title: _____

Phone: (_____) _____

- c. Mailing address:

Street or P.O. Box: _____

City or Town: _____ State: _____ Zip: _____

- d. Total dry metric tons per 365-day period of sewage sludge provided to receiving facility:

 dry metric tons

- e. List, on this form or an attachment, the receiving facility's VPDES permit number as well as the numbers of all other federal, state or local permits that regulate the receiving facility's sewage sludge use or disposal practices:

Permit Number: Type of Permit:

- f. Does the receiving facility provide additional treatment to reduce pathogens in sewage sludge from your facility?

 Yes No

Which class of pathogen reduction is achieved for the sewage sludge at the receiving facility?

 Class A Class B Neither or unknown

Describe, on this form or another sheet of paper, any treatment processes used at the receiving facility to reduce pathogens in sewage sludge: _____

- g. Does the receiving facility provide additional treatment to reduce vector attraction characteristics of the sewage sludge? Yes No

Which vector attraction reduction option is met for the sewage sludge at the receiving facility?

 Option 1 (Minimum 38 percent reduction in volatile solids)

 Option 2 (Anaerobic process, with bench-scale demonstration)

 Option 3 (Aerobic process, with bench-scale demonstration)

- ☐ Option 4 (Specific oxygen uptake rate for aerobically digested sludge)
- ☐ Option 5 (Aerobic processes plus raised temperature)
- ☐ Option 6 (Raise pH to 12 and retain at 11.5)
- ☐ Option 7 (75 percent solids with no unstabilized solids)
- ☐ Option 8 (90 percent solids with unstabilized solids)
- ☐ None unknown

Describe, on this form or another sheet of paper, any treatment processes used at the receiving facility to reduce vector attraction properties of sewage sludge: _____

- h. Does the receiving facility provide any additional treatment or blending not identified in f or g above?
☐ Yes ☐ No

If "Yes", describe, on this form or another sheet of paper, the treatment processes not identified in f or g above: _____

- i. If you answered "Yes" to f, g or h above, attach a copy of any information you provide to the receiving facility to comply with the "notice and necessary information" requirement of 9 VAC 25-31-530.G.
- j. Does the receiving facility place sewage sludge from your facility in a bag or other container for sale or give-away for application to the land? ☐ Yes ☐ No

If "Yes", provide a copy of all labels or notices that accompany the product being sold or given away.

- k. Will the sewage sludge be transported to the receiving facility in a truck-mounted watertight tank normally used for such purposes? ☐ Yes ☐ No. If "No", provide description and specification on the vehicle used to transport the sewage sludge to the receiving facility.

Show the haul route(s) on a location map or briefly describe the haul route below and indicate the days of the week and the times of the day sewage sludge will be transported. _____

7. Land Application of Bulk Sewage Sludge.

(Complete Question 7.a if sewage sludge from your facility is applied to the land, unless the sewage sludge is covered in Questions 4, 5 or 6. Complete Question 7.b, c & d only if you are responsible for land application of sewage sludge.)

- a. Total dry metric tons per 365-day period of sewage sludge applied to all land application sites:

N/A dry metric tons

- b. Do you identify all land application sites in Section C of this application? ☐ Yes ☐ No

If "No", submit a copy of the Land Application Plan (LAP) with this application (LAP should be prepared in accordance with the instructions).

- c. Are any land application sites located in States other than Virginia? ☐ Yes ☐ No

If "Yes", describe, on this form or on another sheet of paper, how you notify the permitting authority for the States where the land application sites are located. Provide a copy of the notification.

- d. Attach a copy of any information you provide to the owner or lease holder of the land application sites to comply with the "notice and necessary" information requirement of 9 VAC 25-31-530 F and/or H (Examples may be obtained in Appendix IV).

8. Surface Disposal.

(Complete Question 8 if sewage sludge from your facility is placed on a surface disposal site.)

- a. Total dry metric tons per 365-day period of sewage sludge from your facility placed on all surface disposal sites: N/A dry metric tons

- b. Do you own or operate all surface disposal sites to which you send sewage sludge for disposal?
 Yes No

If "No", answer questions c - g for each surface disposal site that you do not own or operate. If you send sewage sludge to more than one surface disposal site, attach additional pages as necessary.

- c. Site name or number: _____

- d. Contact person: _____

Title: _____

Phone: (_____) _____

Contact is: Site Owner Site operator

- e. Mailing address:

Street or P.O. Box: _____

City or Town: _____ State: _____ Zip: _____

- f. Total dry metric tons per 365-day period of sewage sludge from your facility placed on this surface disposal site: _____ dry metric tons

- g. List, on this form or an attachment, the surface disposal site VPDES permit number as well as the numbers of all other federal, state or local permits that regulate the sewage sludge use or disposal practices at the surface disposal site:

Permit Number: _____ Type of Permit: _____

9. Incineration.

(Complete Question 9 if sewage sludge from your facility is fired in a sewage sludge incinerator.)

- a. Total dry metric tons per 365-day period of sewage sludge from your facility fired in a sewage sludge incinerator: N/A dry metric tons

- b. Do you own or operate all sewage sludge incinerators in which sewage sludge from your facility is fired?
 Yes No

If "No", answer questions c - g for each sewage sludge incinerator that you do not own or operate. If you send sewage sludge to more than one sewage sludge incinerator, attach additional pages as necessary.

- c. Incinerator name or number: _____

- d. Contact person: _____

Title: _____

Phone: (_____) _____

Contact is: Incinerator Owner Incinerator Operator

- e. Mailing address:

Street or P.O. Box: _____

City or Town: _____ State: _____ Zip: _____

- f. Total dry metric tons per 365-day period of sewage sludge from your facility fired in this sewage sludge incinerator: _____ dry metric tons

- g. List on this form or an attachment the numbers of all other federal, state or local permits that regulate the firing

of sewage sludge at this incinerator:

Permit Number:

Type of Permit:

10. Disposal in a Municipal Solid Waste Landfill.

(Complete Question 10 if sewage sludge from your facility is placed on a municipal solid waste landfill. Provide the following information for each municipal solid waste landfill on which sewage sludge from your facility is placed. If sewage sludge is placed on more than one municipal solid waste landfill, attach additional pages as necessary.)

a. Landfill name: BFI Old Dominion Landfill

b. Contact person: Carlton Dudding

Title: Compliance Coordinator

Phone: (804) 226-6197

Contact is: ☒ Landfill Owner ☐ Landfill Operator

c. Mailing address:

Street or P.O. Box: 2001 Charles City Road

City or Town: Richmond State: VA Zip: 23231

d. Landfill location.

Street or Route #: same as above

County: _____

City or Town: _____ State: _____ Zip: _____

e. Total dry metric tons per 365-day period of sewage sludge placed in this municipal solid waste landfill:

4400 dry metric tons

f. List, on this form or an attachment, the numbers of all federal, state or local permits that regulate the operation of this municipal solid waste landfill:

Permit Number:

Type of Permit:

SWP 553

Sanitary Waste Landfill

g. Does sewage sludge meet applicable requirements in the Virginia Solid Waste Management Regulation, 9 VAC 20-80-10 et seq., concerning the quality of materials disposed in a municipal solid waste landfill?

☒ Yes ☐ No

h. Does the municipal solid waste landfill comply with all applicable criteria set forth in the Virginia Solid Waste Management Regulation, 9 VAC 20-80-10 et seq.? ☒ Yes ☐ No

i. Will the vehicle bed or other container used to transport sewage sludge to the municipal solid waste landfill be watertight and covered? ☒ Yes ☐ No

Show the haul route(s) on a location map or briefly describe the route below and indicate the days of the week

and time of the day sewage sludge will be transported. Dewatered sludge from the WWTP would be transported south on

Stevensburg Road to State Route 3 and then east on State Route 3 to I-95 South to I-295 into the BFI Old Dominion Landfill in
Henrico County, east of Richmond.

SECTION C. LAND APPLICATION OF BULK SEWAGE SLUDGE

Complete this section for sewage sludge that is land applied unless any of the following conditions apply:

- The sewage sludge meets the Table 1 ceiling concentrations, the Table 3 pollutant concentrations, Class A pathogen requirements and one of the vector attraction reduction options 1-8 (fill out B.4 instead) (EQ Sludge); or
- The sewage sludge is sold or given away in a bag or other container for application to the land (fill out B.5 instead); or
- You provide the sewage sludge to another facility for treatment or blending (fill out B.6 instead).

Complete Section C for every site on which the sewage sludge that you reported in B.7 is land applied.

1. Identification of Land Application Site.

- Site name or number: N/A
- Site location (Complete i and ii)
 - Street or Route#: _____
County: _____
City or Town: _____ State: _____ Zip: _____
 - Latitude: _____ Longitude: _____
Method of latitude/longitude determination
____ USGS map ____ Filed survey ____ Other
- Topographic map. Provide a topographic map (or other appropriate map if a topographic map is unavailable) that shows the site location.

2. Owner Information.

- Are you the owner of this land application site? ____ Yes ____ No
- If "No", provide the following information about the owner:
Name: _____
Street or P.O. Box: _____
City or Town: _____ State: _____ Zip: _____
Phone: (_____) _____

3. Applier Information:

- Are you the person who applies, or who is responsible for application of, sewage sludge to this land application site?
____ Yes ____ No
- If "No", provide the following information for the person who applies the sewage sludge:
Name: _____
Street or P.O. Box: _____
City or Town: _____ State: _____ Zip: _____
Phone: (_____) _____
- List, on this form or an attachment, the numbers of all federal, state or local permits that regulate the person who applies sewage sludge to this land application site:
Permit Number: _____ Type of Permit: _____

4. Site Type. Identify the type of land application site from among the following:

- ____ Agricultural land ____ Reclamation site ____ Forest
____ Public contact site ____ Other (describe _____)

5. Vector Attraction Reduction.

Are any vector attraction reduction requirements met when sewage sludge is applied to the land application site?

____ Yes ____ No If "Yes", answer a and b.

- a. Indicate which vector attraction reduction option is met:
_____ Option 9 (Injection below land surface)
_____ Option 10 (Incorporation into soil within 6 hours)
- b. Describe, on this form or on another sheet of paper, any treatment processes used at the land application site to reduce the vector attraction properties of sewage sludge:
- _____
- _____

6. Cumulative Loadings and Remaining Allotments.

(Complete Question 6 only if the sewage sludge applied to this site since July 20, 1993 is subject to the cumulative pollutant loading rates (CPLRs) - see instructions.)

- a. Have you contacted DEQ or the permitting authority in the state where the sewage sludge subject to the CPLRs will be applied to ascertain whether bulk sewage sludge subject to the CPLRs has been applied to this site since July 20, 1993? _____ Yes _____ No

If "No", sewage sludge subject to the CPLRs may not be applied to this site.

If "Yes", provide the following information:

Permitting authority: _____

Contact person: _____

Phone: (_____) _____

- b. Based upon this inquiry, has bulk sewage sludge subject to the CPLRs been applied to this site since July 20, 1993?
_____ Yes _____ No If "No", skip the rest of Question 6. If "Yes", answer questions c - e.

- c. Site size, in hectares: _____ (one hectare = 2.471 acres)

- d. Provide the following information for every facility other than yours that is sending or has sent sewage sludge subject to the CPLRs to this site since July 20, 1993. If more than one such facility sends sewage sludge to this site, attach additional pages as necessary.

Facility name: _____

Facility contact: _____

Title: _____

Phone: (_____) _____

Mailing address.

Street or P.O. Box: _____

City or Town: _____ State: _____ Zip: _____

- e. Provide the total loading and allotment remaining, in kg/hectare, for each of the following pollutants:

| | Cumulative loading | Allotment remaining |
|----------|--------------------|---------------------|
| Arsenic | _____ | _____ |
| Cadmium | _____ | _____ |
| Copper | _____ | _____ |
| Lead | _____ | _____ |
| Mercury | _____ | _____ |
| Nickel | _____ | _____ |
| Selenium | _____ | _____ |
| Zinc | _____ | _____ |

Complete Questions 7-12 below only if you apply sewage sludge, or you are responsible for land application of sewage sludge. Information required by these questions may be prepared as attachments to this form. Skip the following questions if you contract land application to someone else (as indicated under Section A.7) who is responsible for the operation.

7. Sludge Characterization. Use the table below or a separate attachment, provide at least one analysis for each parameter.

| | |
|---|-------|
| PCBs (mg/kg) | _____ |
| pH (S. U.) | _____ |
| Percent Solids (%) | _____ |
| Ammonium Nitrogen (mg/kg) | _____ |
| Nitrate Nitrogen (mg/kg) | _____ |
| Total Kjeldahl Nitrogen (mg/kg) | _____ |
| Total Phosphorus (mg/kg) | _____ |
| Total Potassium (mg/kg) | _____ |
| Alkalinity as CaCO ₃ * (mg/kg) | _____ |

* Lime treated sludge (10% or more lime by dry weight) should be analyzed for percent CaCO₃.

8. Storage Requirements.

Existing and proposed sludge storage facilities must provide an estimated annual sludge balance on a monthly basis incorporating such factors as storage capacity, sludge production and land application schedule. Include pertinent calculations justifying storage requirements.

Proposed sludge storage facilities must also provide the following information:

- a. A sludge storage site layout on a 7.5 minute topographic quadrangle or other appropriate scaled map to show the following topographic features of the surrounding landscape to a distance of 0.25 mile. Clearly mark the property line.
 - 1) Water wells, abandoned or operating
 - 2) Surface waters
 - 3) Springs
 - 4) Public water supply(s)
 - 5) Sinkholes
 - 6) Underground and/or surface mines
 - 7) Mine pool (or other) surface water discharge points
 - 8) Mining spoil piles and mine dumps
 - 9) Quarry(s)
 - 10) Sand and gravel pits
 - 11) Gas and oil wells
 - 12) Diversion ditch(s)
 - 13) Agricultural drainage ditch(s)
 - 14) Occupied dwellings, including industrial and commercial establishments
 - 15) Landfills or dumps
 - 16) Other unlined impoundments
 - 17) Septic tanks and drainfields
 - 18) Injection wells
 - 19) Rock outcrops
- b. A topographic map of sufficient detail to clearly show the following information:
 - 1) Maximum and minimum percent slopes
 - 2) Depressions on the site that may collect water
 - 3) Drainageways that may attribute to rainfall run-on to or runoff from this site
 - 4) Portions of the site (if any) which are located with the 100-year floodplain and how the storage facility will be protected from flooding
- c. Data and specifications for the storage facility lining material.
- d. Plan and cross-sectional views of the storage facility.
- e. Depth from the bottom of the storage facility to the seasonal high water table and separation distance to the permanent water table.

9. Land Area Requirements. Provide calculations justifying the land area requirements for land application of sewage sludge taking into consideration average soil productivity group, crop(s) to be grown and most limiting factor(s) of the sewage sludge, specifically Plant Available Nitrogen (PAN), Calcium Carbonate Equivalence (CCE), and metal loadings

(CPLR sewage sludge only), where applicable. Relate PAN, CCE, and metal loadings to demonstrate the most limiting factor for land application.

- 10. Landowner Agreement Forms.** Provide a properly completed Sewage Sludge Application Agreement Form (attached) for each landowner if sewage sludge is to be applied onto land not owned by the applicant.

11. Ground Water Monitoring.

Are any ground water monitoring data available for this land application site? ☐ Yes ☐ No

If "Yes", submit the ground water monitoring data with this permit application. Also submit a written description of the well locations, approximate depth to ground water, and the ground water monitoring procedures used to obtain these data.

12. Land Application Site Information.

(Complete Items a-d for sites receiving infrequent application - land application of sewage sludge up to the agronomic rate at a frequency of once in a 3 year period; complete Items a-h for sites receiving frequent application - land application of sewage sludge in excess of 70% the agronomic rate at a frequency greater than once in a 3 year period)

- a. Provide a general location map for each county which clearly indicates the location of all the land application sites.
- b. For each land application site provide a site plan of sufficient detail to clearly show the concerned landscape features and associated buffer zones (See instructions). Provide a legend for each landscape feature and the net acreage for each field taking into account the proposed buffer zones.
- c. In order to ensure that land application of bulk sewage sludge will not impact federally listed threatened or endangered species or federally designated critical habitat, the applicant must notify the field office of the U. S. Department of the Interior, Fish and Wildlife Service (FWS), by a letter, the proposed land application activities with the identification of the land application sites. The address and phone number of FWS are provided below.

U.S. Fish and Wildlife Service
Virginia Field Office
P.O. Box 480
White Marsh, VA 23183
TEL: (804) 693-6694

Provide a copy of the notification letter with this application form.

- d. Provide a soil survey map, preferably photographically based, with the field boundaries clearly marked. (A USDA-SCS soil survey map should be provided, if available.)

Provide a detailed legend for each soil survey map which uses accepted USDA-SCS descriptions of the typifying pedon for each soil series (soil type). Complex associations may be described as a range of characteristics. Soil descriptions shall include as a minimum the following information.

- 1) Soil symbol
- 2) Soil series, textural phase and slope range
- 3) Depth to seasonal high water table
- 4) Depth to bedrock
- 5) Estimated soil productivity group (for the proposed crop rotation)

Item e - h are required for sites receiving frequent application of sewage sludge

- e. In order to verify the information provided in item d, characterize the soil at each land application site. Representative soil borings or test pits to a depth of five feet or to bedrock if shallower, are to be coordinated for the typifying pedon of each soil series (soil type). Soil descriptions shall include as a minimum the following information:

- 1) Soil symbol
- 2) Soil series, textural phase and slope range
- 3) Depth to seasonal high water table
- 4) Depth to bedrock
- 5) Estimated soil productivity group (for the proposed crop rotation)

- f. Collect and analyze soil samples from each field, weighted to best represent each of the soil borings performed for Item e. Using the table below or a separate attachment, provide at least one analysis per sample for each of the following parameters.

Soil Organic Matter (%)

Soil pH (std. units)

| | |
|--|-------|
| Cation Exchange Capacity (meq/100g) | _____ |
| Total Nitrogen (ppm) | _____ |
| Organic Nitrogen (ppm) | _____ |
| Ammonia Nitrogen (ppm) | _____ |
| Nitrate Nitrogen (ppm) | _____ |
| Available Phosphorus (ppm) | _____ |
| Exchangeable Potassium (mg/100g) | _____ |
| Exchangeable Sodium (mg/100g) | _____ |
| Exchangeable Calcium (mg/100g) | _____ |
| Exchangeable Magnesium (mg/100g) | _____ |
| Arsenic (ppm) | _____ |
| Cadmium (ppm) | _____ |
| Copper (ppm) | _____ |
| Lead (ppm) | _____ |
| Mercury (ppm) | _____ |
| Molybdenum (ppm) | _____ |
| Nickel (ppm) | _____ |
| Selenium (ppm) | _____ |
| Zinc (ppm) | _____ |
| Manganese (ppm) | _____ |
| Particle Size Analysis or USDA Textural Estimate (%) | _____ |

- g. Relate the crop nutrient needs to anticipated yields, soil productivity rating and the various fertilizer or nutrient sources from sludge and chemical fertilizers. Describe any specialized agronomic management practices which may be required as a result of high soil pH. If the sludge is expected to possess an unusually high CCE or other unusual properties, provide a description of any plant tissue testing, supplemental fertilization or intensive agronomic management practices which may be necessary.
- h. Using a narrative format and referencing any related charts, describe the proposed cropping system. Show how the crop rotation and management will be coordinated with the design of the land application system. Include any supplemental fertilization program, soil testing and the coordination of tillage practices, planting and harvesting schedules and timing of land application.

SEWAGE SLUDGE APPLICATION AGREEMENT

This sewage sludge application agreement is made on this date _____ between _____, referred to here as "landowner", and _____, referred to here as the "Permittee".

Landowner is the owner of agricultural land shown on the map attached as Exhibit A and designated there as _____ ("landowner's land"). Permittee agrees to apply and landowner agrees to comply with certain permit requirements following application of sewage sludge on landowner's land in amounts and in a manner authorized by VPDES permit number _____ which is held by the Permittee.

Landowner acknowledges that the appropriate application of sewage sludge will be beneficial in providing fertilizer and soil conditioning to the property. Moreover, landowner acknowledges having been expressly advised that, in order to protect public health, the following site restrictions must be adhered to when sewage sludge receives Class B treatment for pathogen reduction:

1. Food crops with harvested parts that touch the sewage sludge/soil mixture and are totally above the land surface shall not be harvested for 14 months after application of sewage sludge;
2. Food crops with harvested parts below the surface of the land shall not be harvested for 20 months after application of sewage sludge when the sewage sludge remains on the land surface for four months or longer prior to incorporation into the soil;
3. Food crops with harvested parts below the surface of the land shall not be harvested for 38 months after application of sewage sludge when the sewage sludge remains on the land surface for less than four months prior to incorporation into the soil;
4. Food crops, feed crops, and fiber crops shall not be harvested for 30 days after application of sewage sludge;
5. Animals shall not be grazed on the land for 30 days after application of sewage sludge;
6. Turf grown on land where sewage sludge is applied shall not be harvested for one year after application of the sewage sludge when the harvested turf is placed on either land with a high potential for public exposure or a lawn, unless otherwise specified by the State Water Control Board;
7. Public access to land with a high potential for public exposure shall be restricted for one year after application of sewage sludge;
8. Public access to land with a low potential for public exposure shall be restricted for 30 days after application of sewage sludge.
9. Tobacco, because it has been shown to accumulate cadmium, should not be grown on landowner's land for three years following the application of sewage sludge borne cadmium equal to or exceeding 0.5 kilograms/hectare (0.45 pounds/acre).

Permittee agrees to notify landowner or landowner's designee of the proposed schedule for sewage sludge application and specifically prior to any particular application to landowner's land. This agreement may be terminated by either party upon written notice to the address specified below.

Landowner:

Permittee:

Signature_____
Signature_____
Mailing Address_____
Mailing Address

SECTION D. SURFACE DISPOSAL

Complete this section only if you own or operate a surface disposal site. Provide the information for each active sewage sludge unit.

1. Information on Active Sewage Sludge Units.

- a. Unit name or number: N/A
- b. Unit location
- i. Street or Route#: _____
County: _____
City or Town: _____ State: _____ Zip: _____
- ii. Latitude: _____ Longitude: _____
Method of latitude/longitude determination
_____ USGS map _____ Filed survey _____ Other
- c. Topographic map. Provide a topographic map (or other appropriate map if a topographic map is unavailable) that shows the site location.
- d. Total dry metric tons of sewage sludge placed on the active sewage sludge unit per 365-day period:
_____ dry metric tons.
- e. Total dry metric tons of sewage sludge placed on the active sewage sludge unit over the life of the unit:
_____ dry metric tons.
- f. Does the active sewage sludge unit have a liner with a minimum hydraulic conductivity of 1×10^{-7} cm/sec?
_____ Yes _____ No If "Yes", describe the liner or attach a description.

- g. Does the active sewage sludge unit have a leachate collection system? _____ Yes _____ No
If "Yes", describe the leachate collection system or attach a description. Also, describe the method used for leachate disposal and provide the numbers of any federal, state or local permits for leachate disposal:

- h. If you answered "No" to either f or g, answer the following:
Is the boundary of the active sewage sludge unit less than 150 meters from the property line of the surface disposal site? _____ Yes _____ No If "Yes", provide the actual distance in meters: _____
- i. Remaining capacity of active sewage sludge unit, in dry metric tons: _____ dry metric tons
Anticipated closure date for active sewage sludge unit, if known: _____ (MM/DD/YYYY)
Provide with this application a copy of any closure plan developed for this active sewage sludge unit.

2. Sewage Sludge from Other Facilities.

Is sewage sludge sent to this active sewage sludge unit from any facilities other than yours? _____ Yes _____ No

If "Yes", provide the following information for each such facility, attach additional sheets as necessary.

- a. Facility name: _____
- b. Facility contact: _____
Title: _____
Phone: (_____) _____
- c. Mailing address:
Street or P.O. Box: _____
City or Town: _____ State: _____ Zip: _____

- d. List, on this form or an attachment, the facility's VPDES permit number as well as the numbers of all other federal, state or local permits that regulate the facility's sewage sludge management practices:

Permit Number: _____

Type of Permit: _____

- e. Which class of pathogen reduction is achieved before sewage sludge leaves the other facility?

____ Class A ____ Class B ____ Neither or unknown

- f. Describe, on this form or on another sheet of paper, any treatment processes used at the other facility to reduce pathogens in sewage sludge: _____

- g. Which vector attraction reduction option is achieved before sewage sludge leaves the other facility?

____ Option 1 (Minimum 38 percent reduction in volatile solids)

____ Option 2 (Anaerobic process, with bench-scale demonstration)

____ Option 3 (Aerobic process, with bench-scale demonstration)

____ Option 4 (Specific oxygen uptake rate for aerobically digested sludge)

____ Option 5 (Aerobic processes plus raised temperature)

____ Option 6 (Raise pH to 12 and retain at 11.5)

____ Option 7 (75 percent solids with no unstabilized solids)

____ Option 8 (90 percent solids with unstabilized solids)

____ None or unknown

- h. Describe, on this form or another sheet of paper, any treatment processes used at the other facility to reduce vector attraction properties of sewage sludge: _____

- i. Describe, on this form or another sheet of paper, any other sewage sludge treatment activities performed by the other facility that are not identified in e - h above: _____

3. Vector Attraction Reduction.

- a. Which vector attraction reduction option, if any, is met when sewage sludge is placed on this active sewage sludge unit?

____ Option 9 (Injection below land surface)

____ Option 10 (Incorporation into soil within 6 hours)

____ Option 11 (Covering active sewage sludge unit daily)

- b. Describe, on this form or another sheet of paper, any treatment processes used at the active sewage sludge unit to reduce vector attraction properties of sewage sludge: _____

4. Ground Water Monitoring.

- a. Is ground water monitoring currently conducted at this active sewage sludge unit or are ground water monitoring data otherwise available for this active sewage sludge unit? ____ Yes ____ No

If "Yes", provide a copy of available ground water monitoring data. Also provide a written description of the well locations, the approximate depth to ground water, and the ground water monitoring procedures used to obtain these

data.

- b. Has a ground water monitoring program been prepared for this active sewage sludge unit?
_____ Yes _____ No If "Yes", submit a copy of the ground water monitoring program with this application.
- c. Have you obtained a certification from a qualified ground water scientist that the aquifer below the active sewage sludge unit has not been contaminated? _____ Yes _____ No
If "Yes", submit a copy of the certification with this application.

5. Site-Specific Limits.

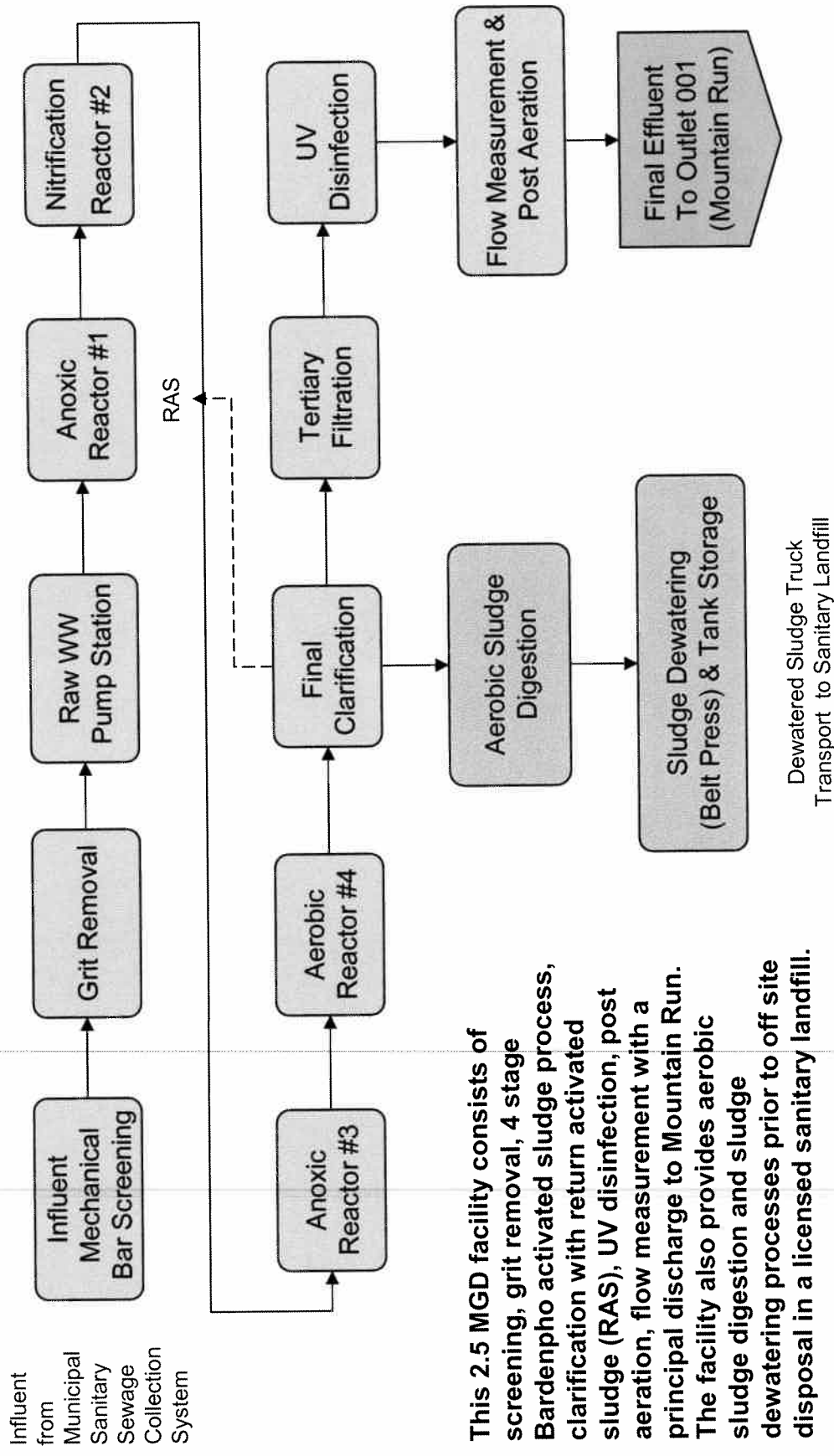
Are you seeking site-specific pollutant limits for the sewage sludge placed on the active sewage sludge unit?
_____ Yes _____ No If "Yes", submit information to support the request for site-specific pollutant limits with this application.

Culpeper County

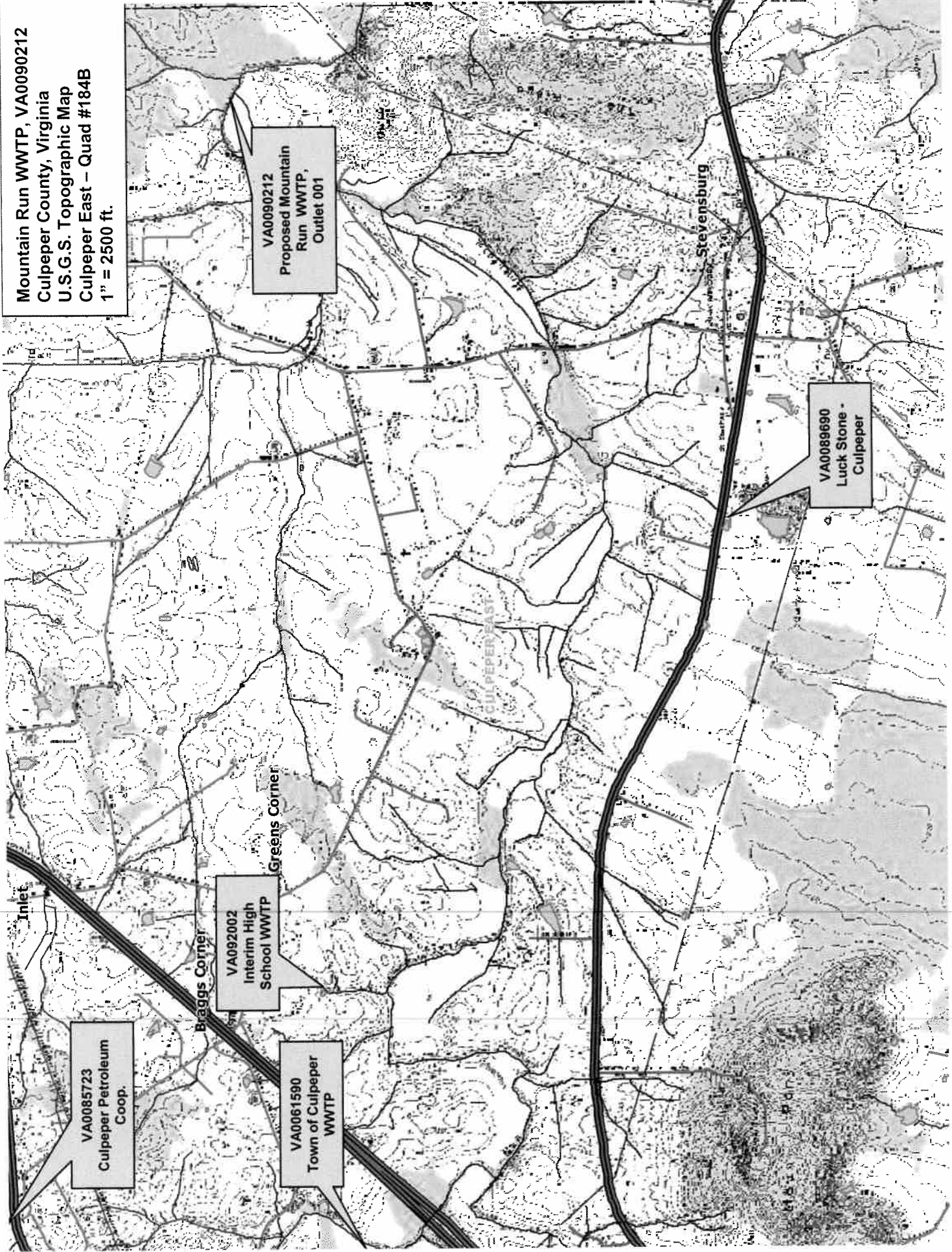
Mountain Run Wastewater Treatment Facility

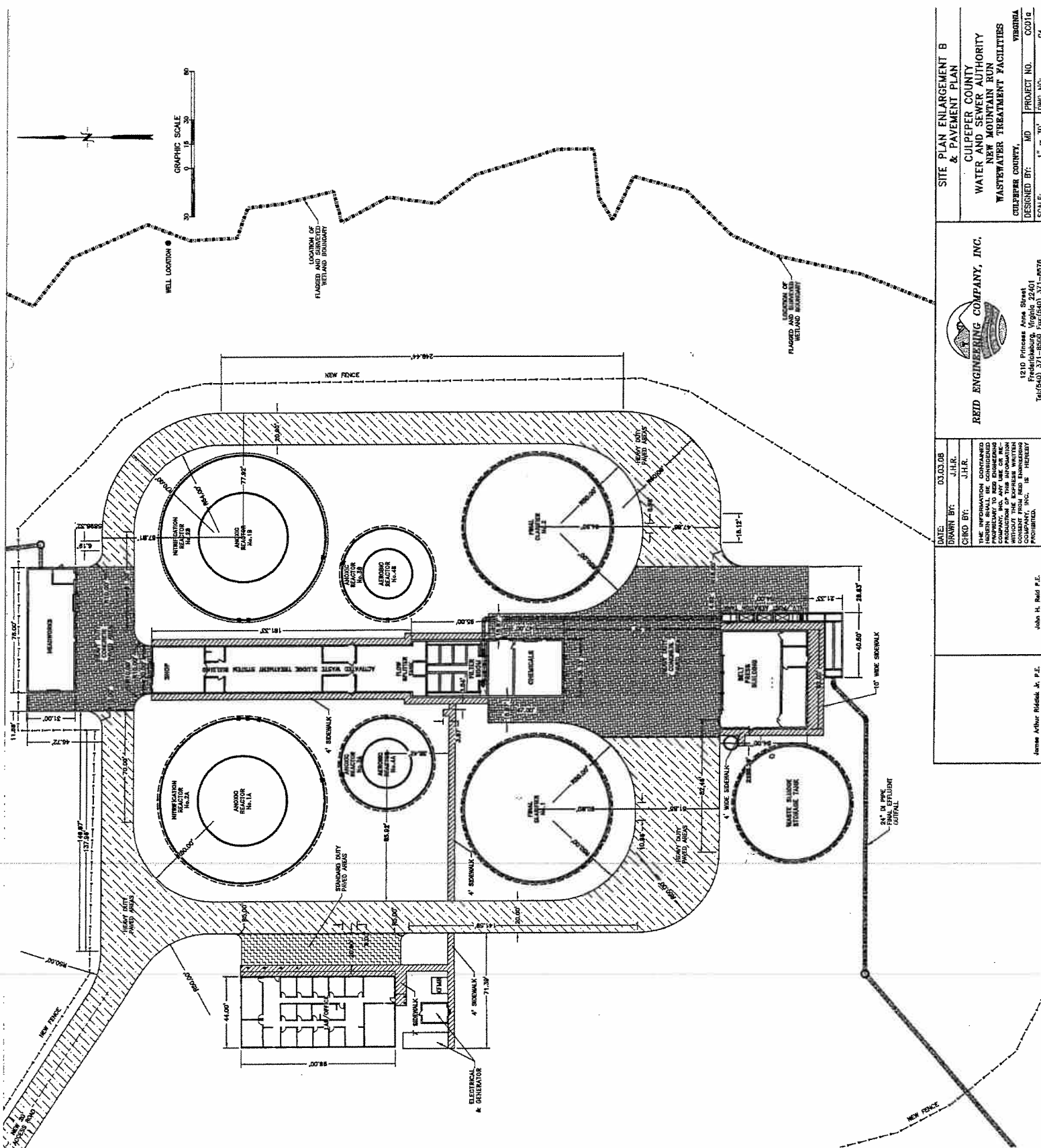
VA0090212

Process Flow Diagram



Mountain Run WWTP, VA0090212
Culpeper County, Virginia
U.S.G.S. Topographic Map
Culpeper East - Quad #184B
1" = 2500 ft.





| | | | |
|--|--|---|---------------------------|
| <p>REID ENGINEERING COMPANY, INC.</p> <p>1210 Princess Anne Street Suite 200 P.O. Box 1001 Tel: (410) 371-8500 Fax: (410) 371-8578</p> | <p>SITE PLAN ENLARGEMENT B & PAVEMENT PLAN</p> <p>CULPEPER COUNTY WATER AND SEWER AUTHORITY NEW MOUNTAIN RUN WASTEWATER TREATMENT FACILITIES</p> <p>DESIGNED BY: MD PROJECT NO. C001a CULPEPER COUNTY, VIRGINIA SCALE: 1" = 30'</p> | <p>DATE: 03.03.08 DRAWN BY: J.H.R. CHECKED BY: J.H.R.</p> <p>THE INFORMATION CONTAINED HEREIN IS THE PROPERTY OF REID ENGINEERING COMPANY, INC. AND IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM WITHOUT THE EXPRESS WRITTEN PERMISSION OF REID ENGINEERING COMPANY, INC. © 2008</p> | <p>John H. Reid, P.E.</p> |
|--|--|---|---------------------------|

Crowther,Joan

From: JIM HOY [JHOY@CULPEPERCOUNTY.GOV]
Sent: Tuesday, December 15, 2009 10:23 AM
To: Crowther,Joan
Subject: FW: Scan of DEQ Mtn Run Resubmission
Attachments: DEQ Mtn Run Permit Response 12-09.pdf

Joan

As promised, attached is an electronic version of the amended VPDES renewal application for the Culpeper County Mt. Run WWTP VPDES renewal application. An original and 2 copies have been sent to you via certified mail.

Please let me know if you have any questions or need additional information.

Jim

Jim Hoy, P.E.
County Engineer
Environmental Services Department
County of Culpeper
118 West Davis Street, Suite 101
Culpeper, Virginia 22701

jhoy@culpepercounty.gov

Direct: (540) 727-3409
Mobile: (540) 718-7445
Fax: (540) 727-3436

From: JANE CRESSWELL
Sent: Monday, December 14, 2009 4:51 PM
To: JIM HOY
Subject: Scan of DEQ Mtn Run Resubmission

I have this already located in the R:\WATER & WASTEWATER-Contracts & Misc\MOUNTAIN RUN - Future Wastewater Treatment\DEQ

12/17/2009



NOV 18 2009

VADEQ - NRO

Jim Hoy, P.E.
County Engineer

118 West Davis Street, Suite 101, Culpeper, Virginia 22701
Telephone: (540) 727-3409 Fax: (540) 727-3436
Email: jhoy@culpepercounty.gov

Certified Mail

November 16, 2009

Ms. Joan C. Crowther
VPDES Permit Writer
Virginia Department of Environmental Quality
Northern Virginia Regional Office
13901 Crown Court
Woodbridge, Virginia 22193

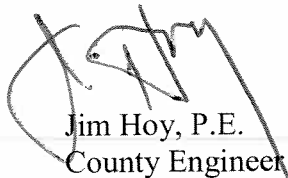
**Re: VA0090212 Culpeper County Mountain Run WWTP
Application for VPDES Permit Renewal**

Dear Ms. Crowther:

Please find attached an original and two (2) copies of an application for renewal for the above referenced permit.

If you have any questions or need additional, please contact me at (540) 727-3409.

Sincerely,



Jim Hoy, P.E.
County Engineer

Attachment

c: Master File

Mountain Run Wastewater Treatment Plant, VA0090212
VPDES Permit Application Addendum

1. Entity to whom the permit is to be issued: County of Culpeper

Who will be legally responsible for the wastewater treatment facilities and compliance with the permit? This may or may not be the facility or property owner.

2. Is this facility located within city or town boundaries? Yes ☐ No ☒

3. Provide the tax map parcel number for the land where the discharge is located. 42 41E

4. For the facility to be covered by this permit, how many acres will be disturbed during the next five years due to new construction activities? To be determined

5. What is the design average effluent flow of this facility? 2.5 MGD

For industrial facilities, provide the max. 30-day average production level, include units:

In addition to the design flow or production level, should the permit be written with limits for any other discharge flow tiers or production levels? Yes ☐ No ☒

If "Yes", please identify the other flow tiers (in MGD) or production levels:

Please consider the following questions for both the flow tiers and the production levels (if applicable): Do you plan to expand operations during the next five years? Is your facility's design flow considerably greater than your current flow?

6. Nature of operations generating wastewater:

Sanitary effluent from domestic and commercial sources within Culpeper County

75 % of flow from domestic connections/sources

Number of private residences to be served by the treatment works: _____

25 % of flow from non-domestic connections/sources

7. Mode of discharge: ☒ Continuous ☐ Intermittent ☐ Seasonal

Describe frequency and duration of intermittent or seasonal discharges:

8. Identify the characteristics of the receiving stream at the point just above the facility's discharge point:

☐ Permanent stream, never dry

☒ Intermittent stream, usually flowing, sometimes dry

☐ Ephemeral stream, wet-weather flow, often dry

☒ Effluent-dependent stream, usually or always dry without effluent flow

☐ Lake or pond at or below the discharge point


☐ Other: _____

9. Approval Date(s):

O & M Manual N/A

Sludge/Solids Management Plan N/A

Have there been any changes in your operations or procedures since the above approval dates? Yes ☐ No N/A

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|--|---|--|-----|---|---|--|--|---|---|---|----|----|--|--|----|--|
| FORM 1 GENERAL |  | U.S. ENVIRONMENTAL PROTECTION AGENCY GENERAL INFORMATION Consolidated Permits Program <i>(Read the "General Instructions" before starting.)</i> | I. EPA I.D. NUMBER <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:5%;">S</td> <td style="width:85%;"></td> <td style="width:5%;">T/A</td> <td style="width:5%;">C</td> </tr> <tr> <td>F</td> <td></td> <td></td> <td>D</td> </tr> <tr> <td>1</td> <td>2</td> <td>13</td> <td>14</td> </tr> <tr> <td></td> <td></td> <td>15</td> <td></td> </tr> </table> | S | | T/A | C | F | | | D | 1 | 2 | 13 | 14 | | | 15 | |
| S | | T/A | C | | | | | | | | | | | | | | | | |
| F | | | D | | | | | | | | | | | | | | | | |
| 1 | 2 | 13 | 14 | | | | | | | | | | | | | | | | |
| | | 15 | | | | | | | | | | | | | | | | | |
| LABEL ITEMS I. EPA I.D. NUMBER III. FACILITY NAME V. FACILITY MAILING ADDRESS VI. FACILITY LOCATION | | II. POLLUTANT CHARACTERISTICS | | | | | | | | | | | | | | | | | |
| VA0090212 Mountain Run Wastewater Treatment Plant 118 West Davis Street, Suite 101 Culpeper, VA 22701 Near Rte. 652 (Stevensburg Road); Culpeper Co. | | GENERAL INSTRUCTIONS If a preprinted label has been provided, affix it in the designated space. Review the information carefully; if any of it is incorrect, cross through it and enter the correct data in the appropriate fill-in area below. Also, if any of the preprinted data is absent (the area to the left of the label space lists the information that should appear), please provide it in the proper fill-in area(s) below. If the label is complete and correct, you need not complete items I, III, V, and VI (except VI-B which must be completed regardless). Complete all items if no label has been provided. Refer to the instructions for detailed item descriptions and for the legal authorizations under which this data is collected. | | | | | | | | | | | | | | | | | |
| INSTRUCTIONS: Complete A through J to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to any questions, you must submit this form and the supplemental form listed in the parenthesis following the question. Mark "X" in the box in the third column if the supplemental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your activity is excluded from permit requirements; see Section C of the instructions. See also, Section D of the instructions for definitions of bold-faced terms. | | | | | | | | | | | | | | | | | | | |
| SPECIFIC QUESTIONS A. Is this facility a publicly owned treatment works which results in a discharge to waters of the U.S.? (FORM 2A) | | SPECIFIC QUESTIONS B. Does or will this facility (either existing or proposed) include a concentrated animal feeding operation or aquatic animal production facility which results in a discharge to waters of the U.S.? (FORM 2B) | | | | | | | | | | | | | | | | | |
| C. Is this a facility which currently results in discharges to waters of the U.S. other than those described in A or B above? (FORM 2C) | | D. Is this a proposed facility (other than those described in A or B above) which will result in a discharge to waters of the U.S.? (FORM 2D) | | | | | | | | | | | | | | | | | |
| E. Does or will this facility treat, store, or dispose of hazardous wastes? (FORM 3) | | F. Do you or will you inject at this facility industrial or municipal effluent below the lowermost stratum containing, within one quarter mile of the well bore, underground sources of drinking water? (FORM 4) | | | | | | | | | | | | | | | | | |
| G. Do you or will you inject at this facility any produced water or other fluids which are brought to the surface in connection with conventional oil or natural gas production, inject fluids used for enhanced recovery of oil or natural gas, or inject fluids for storage of liquid hydrocarbons? (FORM 4) | | H. Do you or will you inject at this facility fluids for special processes such as mining of sulfur by the Frasch process, solution mining of minerals, in situ combustion of fossil fuel, or recovery of geothermal energy? (FORM 4) | | | | | | | | | | | | | | | | | |
| I. Is this facility a proposed stationary source which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5) | | J. Is this facility a proposed stationary source which is NOT one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5) | | | | | | | | | | | | | | | | | |
| III. NAME OF FACILITY 1 SKIP MOUNTAIN RUN WASTEWATER TREATMENT PLANT | | | | | | | | | | | | | | | | | | | |
| IV. FACILITY CONTACT A. NAME & TITLE (last, first, & title) 2 PAUL HOWARD, DIRECTOR OF ENVIRONMENTAL SERVICES B. PHONE (area code & no.) (540) 727-3409 | | | | | | | | | | | | | | | | | | | |
| V. FACILITY MAILING ADDRESS A. STREET OR P.O. BOX 3 118 WEST DAVIS STREET, SUITE 101 B. CITY OR TOWN 4 CULPEPER C. STATE VA D. ZIP CODE 22701 | | | | | | | | | | | | | | | | | | | |
| VI. FACILITY LOCATION A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER 5 NEAR RTE. 652 (STEVENSBURG ROAD) B. COUNTY NAME CULPEPER C. CITY OR TOWN D. STATE VA E. ZIP CODE 22701 F. COUNTY CODE (if known) | | | | | | | | | | | | | | | | | | | |

CONTINUED FROM THE FRONT

| | | | | | | | | | | | | | | | | | | | |
|--|----|--------------------|-----------|----|--|---|----|-----------|----|--|-------------|---|-------------------------------------|--|----------------|----|----|--|--|
| VII. SIC CODES (4-digit, in order of priority) | | | | | | | | | | | | | | | | | | | |
| A. FIRST | | | | | | | | | | B. SECOND | | | | | | | | | |
| C | 7 | 4 | 9 | 5 | 2 | (specify) Sewerage Systems: establishments primarily engaged in the collection and disposal of wastes conducted through a sewer system, including such treatment processes. | | | | | C | 7 | (specify) | | | | | | |
| 15 | 16 | 17 | 18 | 19 | | 15 | 16 | 17 | 18 | 19 | | | | | | | | | |
| C. THIRD | | | | | | | | | | D. FOURTH | | | | | | | | | |
| C | 7 | (specify) | | | | C | 7 | (specify) | | | | | | | | | | | |
| 15 | 16 | 17 | 18 | 19 | | 15 | 16 | 17 | 18 | 19 | | | | | | | | | |
| VIII. OPERATOR INFORMATION | | | | | | | | | | | | | | | | | | | |
| A. NAME | | | | | | | | | | B. Is the name listed in Item VIII-A also the owner? | | | | | | | | | |
| C | 8 | COUNTY OF CULPEPER | | | | | | | | | | <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO | | | | | | | |
| 15 | 16 | | | | | | | | | | | 55 | 56 | | | | | | |
| C. STATUS OF OPERATOR (Enter the appropriate letter into the answer box: if "Other," specify.) | | | | | | | | | | D. PHONE (area code & no.) | | | | | | | | | |
| F = FEDERAL | | | | | M = PUBLIC (other than federal or state) | | | | | (specify) CULPEPER COUNTY, VIRGINIA | | | | | | | | | |
| S = STATE | | | | | O = OTHER (specify) | | | | | A (540) 727-3409 | | | | | | | | | |
| P = PRIVATE | | | | | | | | | | | | | | | | | | | |
| E. STREET OR P.O. BOX | | | | | | | | | | | | | | | | | | | |
| 118 WEST DAVIS STREET | | | | | | | | | | | | | | | | | | | |
| 26 | | | | | | | | | | | 55 | | | | | | | | |
| F. CITY OR TOWN | | | | | | | | | | G. STATE | H. ZIP CODE | IX. INDIAN LAND | | | | | | | |
| C | B | CULPEPER | | | | | | | | | | VA | 22701 | Is the facility located on Indian lands? | | | | | |
| 15 | 16 | | | | | | | | | | | 40 | 41 | 42 | 43 | 44 | 45 | | |
| X. EXISTING ENVIRONMENTAL PERMITS | | | | | | | | | | | | | | | | | | | |
| A. NPDES (Discharges to Surface Water) | | | | | | | | | | D. PSD (Air Emissions from Proposed Sources) | | | | | | | | | |
| C | T | I | VA0080527 | | | | | | | C | T | I | | | | | | | |
| 9 | N | | | | | | | | | 9 | P | | | | | | | | |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | | | | |
| B. UIC (Underground Injection of Fluids) | | | | | | | | | | E. OTHER (specify) | | | | | | | | | |
| C | T | I | | | | | | | | C | T | I | VA0090603 | | | | | | |
| 9 | U | | | | | | | | | 9 | | | (specify) VPDES, Elkwood WWTP | | | | | | |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | | | | |
| C. RCRA (Hazardous Wastes) | | | | | | | | | | E. OTHER (specify) | | | | | | | | | |
| C | T | I | | | | | | | | C | T | I | VA0092002 | | | | | | |
| 9 | R | | | | | | | | | 9 | | | (specify) VPDES, Greens Corner WWTP | | | | | | |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | | | | |
| XI. MAP | | | | | | | | | | | | | | | | | | | |
| Attach to this application a topographic map of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers, and other surface water bodies in the map area. See instructions for precise requirements. | | | | | | | | | | | | | | | | | | | |
| XII. NATURE OF BUSINESS (provide a brief description) | | | | | | | | | | | | | | | | | | | |
| The County of Culpeper is a municipality that provides water and sewerage services to the public. | | | | | | | | | | | | | | | | | | | |
| XIII. CERTIFICATION (see instructions) | | | | | | | | | | | | | | | | | | | |
| I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. | | | | | | | | | | | | | | | | | | | |
| A. NAME & OFFICIAL TITLE (type or print) | | | | | | | | | | B. SIGNATURE | | | | | C. DATE SIGNED | | | | |
| Paul Howard, Jr. | | | | | | | | | |  | | | | | 11/13/09 | | | | |
| Director of Environmental Services | | | | | | | | | | | | | | | | | | | |
| COMMENTS FOR OFFICIAL USE ONLY | | | | | | | | | | | | | | | | | | | |
| C | | | | | | | | | | | | | | | | | | | |
| C | | | | | | | | | | | | | | | | | | | |
| 15 | 16 | | | | | | | | | | | 55 | | | | | | | |

FACILITY NAME AND PERMIT NUMBER:

Mountain Run Wastewater Treatment Plant, VA0090212

Form Approved 1/14/99
OMB Number 2040-0086FORM
2A
NPDES**NPDES FORM 2A APPLICATION OVERVIEW****APPLICATION OVERVIEW**

Form 2A has been developed in a modular format and consists of a "Basic Application Information" packet and a "Supplemental Application Information" packet. The Basic Application Information packet is divided into two parts. All applicants must complete Parts A and C. Applicants with a design flow greater than or equal to 0.1 mgd must also complete Part B. Some applicants must also complete the Supplemental Application Information packet. The following items explain which parts of Form 2A you must complete.

BASIC APPLICATION INFORMATION:

- A. Basic Application Information for all Applicants.** All applicants must complete questions A.1 through A.8. A treatment works that discharges effluent to surface waters of the United States must also answer questions A.9 through A.12.
- B. Additional Application Information for Applicants with a Design Flow ≥ 0.1 mgd.** All treatment works that have design flows greater than or equal to 0.1 million gallons per day must complete questions B.1 through B.6.
- C. Certification.** All applicants must complete Part C (Certification).

SUPPLEMENTAL APPLICATION INFORMATION:

- D. Expanded Effluent Testing Data.** A treatment works that discharges effluent to surface waters of the United States and meets one or more of the following criteria must complete Part D (Expanded Effluent Testing Data):
 1. Has a design flow rate greater than or equal to 1 mgd,
 2. Is required to have a pretreatment program (or has one in place), or
 3. Is otherwise required by the permitting authority to provide the information.
- E. Toxicity Testing Data.** A treatment works that meets one or more of the following criteria must complete Part E (Toxicity Testing Data):
 1. Has a design flow rate greater than or equal to 1 mgd,
 2. Is required to have a pretreatment program (or has one in place), or
 3. Is otherwise required by the permitting authority to submit results of toxicity testing.
- F. Industrial User Discharges and RCRA/CERCLA Wastes.** A treatment works that accepts process wastewater from any significant industrial users (SIUs) or receives RCRA or CERCLA wastes must complete Part F (Industrial User Discharges and RCRA/CERCLA Wastes). SIUs are defined as:
 1. All industrial users subject to Categorical Pretreatment Standards under 40 Code of Federal Regulations (CFR) 403.6 and 40 CFR Chapter I, Subchapter N (see instructions); and
 2. Any other industrial user that:
 - a. Discharges an average of 25,000 gallons per day or more of process wastewater to the treatment works (with certain exclusions); or
 - b. Contributes a process wastestream that makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the treatment plant; or
 - c. Is designated as an SIU by the control authority.
- G. Combined Sewer Systems.** A treatment works that has a combined sewer system must complete Part G (Combined Sewer Systems).

ALL APPLICANTS MUST COMPLETE PART C (CERTIFICATION)

FACILITY NAME AND PERMIT NUMBER:

Form Approved 1/14/99
OMB Number 2040-0086

Mountain Run Wastewater Treatment Plant, VA0090212

A.5. Indian Country.

- a. Is the treatment works located in Indian Country?

☐ Yes ☒ No

- b. Does the treatment works discharge to a receiving water that is either in Indian Country or that is upstream from (and eventually flows through) Indian Country?

☐ Yes ☒ No

A.6. Flow. Indicate the design flow rate of the treatment plant (i.e., the wastewater flow rate that the plant was built to handle). Also provide the average daily flow rate and maximum daily flow rate for each of the last three years. Each year's data must be based on a 12-month time period with the 12th month of "this year" occurring no more than three months prior to this application submittal.

- a. Design flow rate
- 2.5
- mgd

| | <u>Two Years Ago</u> | <u>Last Year</u> | <u>This Year</u> |
|-----------------------------------|----------------------|------------------|------------------|
| b. Annual average daily flow rate | <u>N/A</u> | <u>N/A</u> | <u>N/A</u> mgd |
| c. Maximum daily flow rate | <u>N/A</u> | <u>N/A</u> | <u>N/A</u> mgd |

A.7. Collection System. Indicate the type(s) of collection system(s) used by the treatment plant. Check all that apply. Also estimate the percent contribution (by miles) of each.

☒ Separate sanitary sewer 100 %
☐ Combined storm and sanitary sewer _____ %

A.8. Discharges and Other Disposal Methods.

- a. Does the treatment works discharge effluent to waters of the U.S.?
- ☒
- Yes
- ☐
- No

If yes, list how many of each of the following types of discharge points the treatment works uses:

i. Discharges of treated effluent 2.5
ii. Discharges of untreated or partially treated effluent _____
iii. Combined sewer overflow points _____
iv. Constructed emergency overflows (prior to the headworks) _____
v. Other _____

- b. Does the treatment works discharge effluent to basins, ponds, or other surface impoundments that do not have outlets for discharge to waters of the U.S.?
- ☐
- Yes
- ☒
- No

If yes, provide the following for each surface impoundment:

Location: _____

Annual average daily volume discharged to surface impoundment(s) _____ mgd

Is discharge _____ continuous or _____ intermittent?

- c. Does the treatment works land-apply treated wastewater?
- ☐
- Yes
- ☒
- No

If yes, provide the following for each land application site:

Location: _____

Number of acres: _____

Annual average daily volume applied to site: _____ Mgd

Is land application _____ continuous or _____ intermittent?

- d. Does the treatment works discharge or transport treated or untreated wastewater to another treatment works?
- ☒
- Yes
- ☐
- No

FACILITY NAME AND PERMIT NUMBER:

Mountain Run Wastewater Treatment Plant, VA0090212

Form Approved 1/14/99
OMB Number 2040-0086

A.5. Indian Country.

- a. Is the treatment works located in Indian Country?

☐ Yes ☒ No

- b. Does the treatment works discharge to a receiving water that is either in Indian Country or that is upstream from (and eventually flows through) Indian Country?

☐ Yes ☒ No

A.6. Flow. Indicate the design flow rate of the treatment plant (i.e., the wastewater flow rate that the plant was built to handle). Also provide the average daily flow rate and maximum daily flow rate for each of the last three years. Each year's data must be based on a 12-month time period with the 12th month of "this year" occurring no more than three months prior to this application submittal.

- a. Design flow rate
- 2.5
- mgd

| | <u>Two Years Ago</u> | <u>Last Year</u> | <u>This Year</u> |
|-----------------------------------|----------------------|------------------|------------------|
| b. Annual average daily flow rate | <u>N/A</u> | <u>N/A</u> | <u>N/A</u> mgd |
| c. Maximum daily flow rate | <u>N/A</u> | <u>N/A</u> | <u>N/A</u> mgd |

A.7. Collection System. Indicate the type(s) of collection system(s) used by the treatment plant. Check all that apply. Also estimate the percent contribution (by miles) of each.

☒ Separate sanitary sewer 100 %
☐ Combined storm and sanitary sewer _____ %

A.8. Discharges and Other Disposal Methods.

- a. Does the treatment works discharge effluent to waters of the U.S.?
- ☒
- Yes
- ☐
- No

If yes, list how many of each of the following types of discharge points the treatment works uses:

i. Discharges of treated effluent 2.5
ii. Discharges of untreated or partially treated effluent _____
iii. Combined sewer overflow points _____
iv. Constructed emergency overflows (prior to the headworks) _____
v. Other _____

- b. Does the treatment works discharge effluent to basins, ponds, or other surface impoundments that do not have outlets for discharge to waters of the U.S.?
- ☐
- Yes
- ☒
- No

If yes, provide the following for each surface impoundment:

Location: _____

Annual average daily volume discharged to surface impoundment(s) _____ mgd

Is discharge _____ continuous or _____ intermittent?

- c. Does the treatment works land-apply treated wastewater?
- ☐
- Yes
- ☒
- No

If yes, provide the following for each land application site:

Location: _____

Number of acres: _____

Annual average daily volume applied to site: _____ Mgd

Is land application _____ continuous or _____ intermittent?

- d. Does the treatment works discharge or transport treated or untreated wastewater to another treatment works?
- ☒
- Yes
- ☐
- No

FACILITY NAME AND PERMIT NUMBER:Form Approved 1/14/99
OMB Number 2040-0086

Mountain Run Wastewater Treatment Plant, VA0090212

If yes, describe the mean(s) by which the wastewater from the treatment works is discharged or transported to the other treatment works (e.g., tank truck, pipe).

Tank truck to convey or receive wastewater to/from other County or Town WW treatment facilities (infrequent basis)

If transport is by a party other than the applicant, provide:

Transporter name: To be determined

Mailing Address: _____

Contact person: _____

Title: _____

Telephone number: _____

For each treatment works that receives this discharge, provide the following:

Name: To be determined

Mailing Address: _____

Contact person: _____

Title: _____

Telephone number: _____

If known, provide the NPDES permit number of the treatment works that receives this discharge. _____

Provide the average daily flow rate from the treatment works into the receiving facility. _____ mgd

- e. Does the treatment works discharge or dispose of its wastewater in a manner not included in A.8.a through A.8.d above (e.g., underground percolation, well injection)? _____ Yes ☒ No

If yes, provide the following for each disposal method:

Description of method (including location and size of site(s) if applicable):

Annual daily volume disposed of by this method: _____

Is disposal through this method _____ continuous or _____ intermittent?

FACILITY NAME AND PERMIT NUMBER:

Mountain Run Wastewater Treatment Plant, VA0090212

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WASTEWATER DISCHARGES:

If you answered "yes" to question A.8.a, complete questions A.9 through A.12 once for each outfall (including bypass points) through which effluent is discharged. Do not include information on combined sewer overflows in this section. If you answered "no" to question A.8.a, go to Part B, "Additional Application Information for Applicants with a Design Flow Greater than or Equal to 0.1 mgd."

A.9. Description of Outfall.

- a. Outfall number 001
- b. Location Near Rt. 652, Stevensburg Road 22701
(City or town, if applicable) (Zip Code)
Culpeper VA
(County) (State)
38 deg., 28 min., 18 sec. N 77 deg., 52 min., 47 sec. W
(Latitude) (Longitude)
- c. Distance from shore (if applicable) N/A ft.
- d. Depth below surface (if applicable) N/A ft.
- e. Average daily flow rate 2.5 mgd
- f. Does this outfall have either an intermittent or a periodic discharge? Yes ☒ No (go to A.9.g.)
- If yes, provide the following information:
- Number of times per year discharge occurs: _____
- Average duration of each discharge: _____
- Average flow per discharge: _____ mgd
- Months in which discharge occurs: _____
- g. Is outfall equipped with a diffuser? Yes ☒ No

A.10. Description of Receiving Waters.

- a. Name of receiving water Mountain Run
- b. Name of watershed (if known) Rappahannock River
- United States Soil Conservation Service 14-digit watershed code (if known): _____
- c. Name of State Management/River Basin (if known): Rappahannock River
- United States Geological Survey 8-digit hydrologic cataloging unit code (if known): _____
- d. Critical low flow of receiving stream (if applicable):
acute N/A cfs chronic N/A cfs
- e. Total hardness of receiving stream at critical low flow (if applicable): N/A mg/l of CaCO₃

FACILITY NAME AND PERMIT NUMBER:

Mountain Run Wastewater Treatment Plant, VA0090212

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A.11. Description of Treatment.

- a. What levels of treatment are provided? Check all that apply.

☒ Primary ☒ Secondary
☒ Advanced ☐ Other. Describe: _____

- b. Indicate the following removal rates (as applicable):

Design BOD₅ removal or Design CBOD₅ removal 95 %
 Design SS removal 95 %
 Design P removal 95 %
 Design N removal 90 %
 Other _____ %

- c. What type of disinfection is used for the effluent from this outfall? If disinfection varies by season, please describe.

Ultraviolet (UV) Light Disinfection

If disinfection is by chlorination, is dechlorination used for this outfall?

☐ Yes ☒ No

- d. Does the treatment plant have post aeration?

☒ Yes ☐ No

A.12. Effluent Testing Information. All Applicants that discharge to waters of the US must provide effluent testing data for the following parameters. Provide the indicated effluent testing required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. At a minimum, effluent testing data must be based on at least three samples and must be no more than four and one-half years apart.

Outfall number: 001

| PARAMETER | MAXIMUM DAILY VALUE | | AVERAGE DAILY VALUE | | |
|----------------------|---------------------|-------|---------------------|-------|-------------------|
| | Value | Units | Value | Units | Number of Samples |
| pH (Minimum) | N/A | s.u. | | | |
| pH (Maximum) | N/A | s.u. | | | |
| Flow Rate | N/A | | | | |
| Temperature (Winter) | N/A | | | | |
| Temperature (Summer) | N/A | | | | |

* For pH please report a minimum and a maximum daily value

| POLLUTANT | MAXIMUM DAILY DISCHARGE | | AVERAGE DAILY DISCHARGE | | | ANALYTICAL METHOD | ML / MDL |
|-----------|-------------------------|-------|-------------------------|-------|-------------------|-------------------|----------|
| | Conc. | Units | Conc. | Units | Number of Samples | | |

CONVENTIONAL AND NONCONVENTIONAL COMPOUNDS.

| | | | | | | | |
|--|--------|-----|--|--|--|--|--|
| BIOCHEMICAL OXYGEN DEMAND (Report one) | BOD-5 | N/A | | | | | |
| | CBOD-5 | N/A | | | | | |
| FECAL COLIFORM | | N/A | | | | | |
| TOTAL SUSPENDED SOLIDS (TSS) | | N/A | | | | | |

END OF PART A.

REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

FACILITY NAME AND PERMIT NUMBER:

Mountain Run Wastewater Treatment Plant, VA0090212

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BASIC APPLICATION INFORMATION

PART B. ADDITIONAL APPLICATION INFORMATION FOR APPLICANTS WITH A DESIGN FLOW GREATER THAN OR EQUAL TO 0.1 MGD (100,000 gallons per day).

All applicants with a design flow rate ≥ 0.1 mgd must answer questions B.1 through B.6. All others go to Part C (Certification).

B.1. Inflow and Infiltration. Estimate the average number of gallons per day that flow into the treatment works from inflow and/or infiltration.

N/A gpd

Briefly explain any steps underway or planned to minimize inflow and infiltration.

At the time of this application, the collection works/wastewater treatment facility have not been constructed.

B.2. Topographic Map. Attach to this application a topographic map of the area extending at least one mile beyond facility property boundaries. This map must show the outline of the facility and the following information. (You may submit more than one map if one map does not show the entire area.)

- The area surrounding the treatment plant, including all unit processes.
- The major pipes or other structures through which wastewater enters the treatment works and the pipes or other structures through which treated wastewater is discharged from the treatment plant. Include outfalls from bypass piping, if applicable.
- Each well where wastewater from the treatment plant is injected underground.
- Wells, springs, other surface water bodies, and drinking water wells that are: 1) within 1/4 mile of the property boundaries of the treatment works, and 2) listed in public record or otherwise known to the applicant.
- Any areas where the sewage sludge produced by the treatment works is stored, treated, or disposed.
- If the treatment works receives waste that is classified as hazardous under the Resource Conservation and Recovery Act (RCRA) by truck, rail, or special pipe, show on the map where that hazardous waste enters the treatment works and where it is treated, stored, and/or disposed.

B.3. Process Flow Diagram or Schematic. Provide a diagram showing the processes of the treatment plant, including all bypass piping and all backup power sources or redundancy in the system. Also provide a water balance showing all treatment units, including disinfection (e.g., chlorination and dechlorination). The water balance must show daily average flow rates at influent and discharge points and approximate daily flow rates between treatment units. Include a brief narrative description of the diagram.

B.4. Operation/Maintenance Performed by Contractor(s).

Are any operational or maintenance aspects (related to wastewater treatment and effluent quality) of the treatment works the responsibility of a contractor? ☐ Yes ☒ No

If yes, list the name, address, telephone number, and status of each contractor and describe the contractor's responsibilities (attach additional pages if necessary).

Name: _____

Mailing Address: _____

Telephone Number: _____

Responsibilities of Contractor: _____

B.5. Scheduled Improvements and Schedules of Implementation. Provide information on any uncompleted implementation schedule or uncompleted plans for improvements that will affect the wastewater treatment, effluent quality, or design capacity of the treatment works. If the treatment works has several different implementation schedules or is planning several improvements, submit separate responses to question B.5 for each. (If none, go to question B.6.)

- a. List the outfall number (assigned in question A.9) for each outfall that is covered by this implementation schedule.

N/A

- b. Indicate whether the planned improvements or implementation schedule are required by local, State, or Federal agencies.

☐ Yes ☐ No

FACILITY NAME AND PERMIT NUMBER:

Mountain Run Wastewater Treatment Plant, VA0090212

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- c. If the answer to B.5.b is "Yes," briefly describe, including new maximum daily inflow rate (if applicable).

- d. Provide dates imposed by any compliance schedule or any actual dates of completion for the implementation steps listed below, as applicable. For improvements planned independently of local, State, or Federal agencies, indicate planned or actual completion dates, as applicable. Indicate dates as accurately as possible.

| Implementation Stage | Schedule MM / DD / YYYY | Actual Completion MM / DD / YYYY |
|----------------------------|----------------------------|-------------------------------------|
| – Begin construction | ___/___/___ | ___/___/___ |
| – End construction | ___/___/___ | ___/___/___ |
| – Begin discharge | ___/___/___ | ___/___/___ |
| – Attain operational level | ___/___/___ | ___/___/___ |

- e. Have appropriate permits/clearances concerning other Federal/State requirements been obtained? ☐ Yes ☐ No

Describe briefly: _____

B.6. EFFLUENT TESTING DATA (GREATER THAN 0.1 MGD ONLY).

Applicants that discharge to waters of the US must provide effluent testing data for the following parameters. Provide the indicated effluent testing required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. At a minimum, effluent testing data must be based on at least three pollutant scans and must be no more than four and one-half years old.

Outfall Number: 001

| POLLUTANT | MAXIMUM DAILY DISCHARGE | | AVERAGE DAILY DISCHARGE | | | ANALYTICAL METHOD | ML / MDL |
|---|-------------------------|-------|-------------------------|-------|-------------------|-------------------|----------|
| | Conc. | Units | Conc. | Units | Number of Samples | | |
| CONVENTIONAL AND NONCONVENTIONAL COMPOUNDS. | | | | | | | |
| AMMONIA (as N) | N/A | | | | | | |
| CHLORINE (TOTAL RESIDUAL, TRC) | N/A | | | | | | |
| DISSOLVED OXYGEN | N/A | | | | | | |
| TOTAL KJELDAHL NITROGEN (TKN) | N/A | | | | | | |
| NITRATE PLUS NITRITE NITROGEN | N/A | | | | | | |
| OIL and GREASE | N/A | | | | | | |
| PHOSPHORUS (Total) | N/A | | | | | | |
| TOTAL DISSOLVED SOLIDS (TDS) | N/A | | | | | | |
| OTHER | | | | | | | |

END OF PART B.

REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

FACILITY NAME AND PERMIT NUMBER:

Mountain Run Wastewater Treatment Plant, VA0090212

Form Approved 1/14/99
OMB Number 2040-0086**BASIC APPLICATION INFORMATION****PART C. CERTIFICATION**

All applicants must complete the Certification Section. Refer to instructions to determine who is an officer for the purposes of this certification. All applicants must complete all applicable sections of Form 2A, as explained in the Application Overview. Indicate below which parts of Form 2A you have completed and are submitting. By signing this certification statement, applicants confirm that they have reviewed Form 2A and have completed all sections that apply to the facility for which this application is submitted.

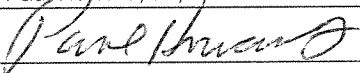
Indicate which parts of Form 2A you have completed and are submitting:

Basic Application Information packet

Supplemental Application Information packet:

☐ Part D (Expanded Effluent Testing Data)☐ Part E (Toxicity Testing: Biomonitoring Data)☐ Part F (Industrial User Discharges and RCRA/CERCLA Wastes)☐ Part G (Combined Sewer Systems)**ALL APPLICANTS MUST COMPLETE THE FOLLOWING CERTIFICATION.**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name and official title Paul Howard, Jr., Director of Environmental ServicesSignature Telephone number (540) 727-3409Date signed 11/13/09

Upon request of the permitting authority, you must submit any other information necessary to assess wastewater treatment practices at the treatment works or identify appropriate permitting requirements.

SEND COMPLETED FORMS TO:

VA0085723
Culpeper Petroleum
Coop.

VA0061590
Town of Culpeper
WWTP

VA092002
Interim High
School WWTP

VA0089690
Luck Stone -
Culpeper

VA0090212
Proposed Mountain
Run WWTP,
Outlet 001

Mountain Run WWTP, VA0090212
Culpeper County, Virginia
U.S.G.S. Topographic Map
Culpeper East -- Quad #184B
1" = 2500 ft.

